



Carleton College
TENTH ANNUAL CALENDAR
DAY AND EVENING DIVISIONS
1951-52

How to Register

- New full-time students enrolling for a degree or diploma will take all of these steps.
 - New part-time students enrolling for a degree or diploma will take steps 1, 2 and 4.
 - All other students, including returning students and those not enrolling for a degree or diploma, will take step 4 only.
1. Complete application for admission on form available from the Registrar's Office. Applications should be submitted to the Registrar well in advance of term opening.
 2. Attach certificates of former schooling (Junior Matriculation and any studies pursued subsequently) to application for admission, or arrange for such to be sent to the Registrar.
 3. When application has been approved, (a) arrange for physical examination by own physician and (b) have him report results to the College on the health report form available from the Registrar's Office. This report should be completed and submitted to the College before final registration.
 4. During the appropriate registration period specified under The Academic Year (p. 3), come to the College to (a) arrange final selection of subjects, (b) complete registration forms, (c) pay fees, and (d) receive class and library admission cards.

College Office Hours

From September 1st to April 30th, offices are open at the following times:

Monday to Friday	{ 9.00 a.m. to 12.30 p.m. 2.00 p.m. to 9.00 p.m.
Saturday	9.00 a.m. to 12.30 p.m.

From May 1st to August 31st, offices are open at the following times:

Monday and Thursday	{ 9.00 a.m. to 12.30 p.m. 2.00 p.m. to 5.00 p.m. 6.30 p.m. to 8.30 p.m.
Tuesday, Wednesday and Friday	{ 9.00 a.m. to 12.30 p.m. 2.00 p.m. to 5.00 p.m.
Saturday	Closed all day, except in May

As this Calendar is published several weeks before the opening of the session, the College reserves the right to make whatever changes circumstances may require, including cancellation of particular courses.

Carleton College

TENTH ANNUAL CALENDAR

DAY AND EVENING DIVISIONS

for the academic year

1951-52

FIRST AVENUE AT LYON
OTTAWA, ONTARIO
CANADA

Telephone: 5-5161

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The Academic Year

1951

Summer Session

May 21, 22, 23, 25	Registration for summer session.
May 28	Summer session classes begin.
June 4	King's Birthday. No classes.*
July 2	Public Holiday. No classes.*
July 14	Last day for applications for supplemental examinations.
Aug. 6	Civic Holiday. No classes.*
Aug. 20	Supplemental examinations begin.
Aug. 27	Last day of summer session classes.
Aug. 29, 30	Summer session examinations.

*Classes will meet instead on the following day.

Winter Session

Sept. 5-12	Registration for classes in day and evening divisions.
Sept. 13	Classes begin in all courses, day and evening.
Oct. 8	Thanksgiving Day. No classes.
Nov. 15	Last day for applications for summer session supplemental examinations.
Dec. 15	Last day of classes in the first term, day and evening divisions.
Dec. 17-22	Mid-year examinations in first and second year full courses and summer session supplemental examinations.

1952

Jan. 3, 4	Final examinations in first term half courses.
Jan. 7	Second term begins in day and evening divisions.
Apr. 5	Last day of classes in the second term, day and evening divisions.
Apr. 7-30	Final examinations in day and evening divisions.
Apr. 11-14	Easter week-end. College closed.
April-May	Summer Survey School for Engineering students (4 weeks).
May 16	Convocation for the conferring of degrees.

Historical Statement

During the autumn and winter of 1938-39, a committee of the Ottawa Y.M.C.A., with Dr. H. L. Keenleyside as Chairman, held periodic meetings to discuss the need for a non-sectarian institution of higher education in Ottawa. Several possibilities for improving the situation were considered and some were tentatively explored.

With the outbreak of war in 1939 the committee discontinued its meetings, but by 1941 it had become apparent that circumstances brought about by the war had increased the need of facilities for higher education in the Capital. The problem was consequently taken up again by a group, mainly the same as the earlier committee in personnel, under the chairmanship of the late Dr. Henry Marshall Tory.

The situation was discussed with the heads of universities in other cities attended in numbers by Ottawa students and with many prominent citizens of Ottawa. Teaching resources for evening classes, good at any time in the Capital, had been greatly increased by the presence of many university teachers in temporary wartime positions. Enquiry revealed a sufficient number of teachers willing and anxious to co-operate. The idea of establishing an autonomous association based on general community support for the purpose of conducting a college, and promoting higher educational work generally, met with cordial acceptance and a group of citizens guaranteed sufficient funds to make an experimental period possible. Plans were accordingly made to establish "The Ottawa Association for the Advancement of Learning", the immediate objects of which would be to offer evening instruction in the first two years of university work under the name of Carleton College, and later to establish an Institute of Public Administration.

The Ottawa Association for the Advancement of Learning was organized on June 18, 1942, and incorporated under the laws of the Province of Ontario on June 19, 1943. Carleton College, the Association's first operating unit, was established in the summer of 1942 and opened its first (evening) class on September 21st in that year. Admission to its credit courses in the first year of Arts, Science and Commerce, was by Junior Matriculation.

All classes, in the beginning and until 1945, were held in the High School of Commerce and in Glebe Collegiate Institute.

The response to the educational offerings of the new college was immediate and impressive. All expectations of the organizers of the College were far exceeded when 779 students registered for the first academic year, 1942-43.

The Institute of Public Administration was established in the Summer of 1943 and opened its first (evening) classes on October 4, 1943.

In the early months of 1945 it became obvious that special arrangements must be made to receive the great number of young war veterans who were beginning to return from overseas. On March 19, 1945, the College opened the first of a series of nine intensive courses, each of from four to six months' duration. These special courses in matriculation subjects were given in day classes, the first day-time classes in the history of the College. It was for these veterans' courses, also, that Carleton College employed its first full-time instructors. By the end of August, 1946, when the special courses were discontinued, more than 1,200 ex-servicemen and women had availed themselves of the facilities of this young war-born college in making their first approach to their educational rehabilitation.

Through these turbulent months, the needs of the civilian students were not neglected. Although they could not be accommodated in the day classes, evening class opportunities were being constantly expanded. New subjects of instruction were offered. More teachers were engaged. The civilian student registration in September, 1945, was above 1,000.

In September, 1946, Carleton College for the first time came into possession of a building of its own, a four-storey structure situated at the south-west corner of First Avenue and Lyon Street, on a property running west from Lyon between First and Second Avenues. Originally the property of the Ottawa Ladies' College, the building and grounds had been bought early in the war by the Department of National Defence (Army) and put into use as a barracks of the Canadian Women's Army Corps. Carleton College opened full-scale day and evening classes in this building on September 16, 1946.

The heavy inflow of veterans had by this time subsided to the point where it was found possible to accommodate veteran and civilian students in the same classes, and to revert in all classes to the regular academic year, September through May.

Two major advances in the teaching curriculum were made at the beginning of the academic year 1945-46. In response to many requests, specifically from discharged service personnel, instruction was offered in a new Department of Journalism. This began as a two-year course with two years in Arts as the entrance requirement. Requests from other ex-servicemen resulted similarly in a decision to offer instruction in the subjects of Engineering.

During 1945-46, because of the growth of the work of the College, and because of the intimate relation of the various courses of study, it was decided to consolidate the courses in Arts, Pure Science, Journalism, and Engineering in a Faculty of Arts and Science, and in the following year the Institute of Public Administration was absorbed by the Faculty of Arts and Science.

The first degrees, three Bachelor of Journalism, and three Bachelor of Public Administration, were conferred at a Convocation held on October 23, 1946.

On February 6, 1947, the College sustained a severe blow in the loss by death of Henry Marshall Tory, D.Sc., LL.D., D.C.L., F.R.S.C., F.R.Hist.S., first Chairman of the Board of Governors, first President of the College, and the leader more than any other responsible for the success attained by Carleton College in the first five years of its existence.

Dr. Tory's place as Chairman of the Board of Governors was taken by H. S. Southam, Esquire, C.M.G. On February 18, 1947, Murdoch Maxwell MacOdrum, M.A., Ph.D., formerly Vice-President of the College, was appointed by the Board of Governors to succeed Dr. Tory as President.

Determined to continue the work so well begun by Dr. Tory, the Board of Governors decided to proceed without delay to the execution of plans made in the autumn of 1946 for raising by public subscription of a fund for Carleton College. The campaign was planned with an objective of \$500,000 to pay off the debt on the recently acquired building, to enlarge it and to provide necessary equipment. It was launched in mid-February, 1947, and subscriptions sought for the period 1947-49. In that campaign 1,891 subscribers gave \$337,463 to the building fund.

A second three-year campaign, the Carleton College Development Fund, was begun in February, 1951, with an objective of \$511,000. Subscriptions in the first four months totalled \$304,952.

Beginning with the year 1949-50, support was given by the Province of Ontario: \$65,000 in that year and \$75,000 in 1950-51. The allocation for the year 1951-52 was \$100,000.

In addition, by the end of April, 1951, \$179,237 had been received for endowment and the College had been named beneficiary of bequests totalling an estimated \$50,000 as further endowment.

In preparation for the academic year 1947-48 complete four-year Pass Courses and five-year Honour Courses were organized, leading to the Bachelor of Arts, Bachelor of Science and Bachelor of Commerce degrees. The third year in all these courses was made available to students of the College in September, 1947, the fourth year in September, 1948, and the fifth year of the Honour Courses in September, 1949. Carleton College conferred its first Bachelor of Arts, Bachelor of Science and Bachelor of Commerce degrees in the Spring of 1949, and its first five-year Honour degrees in the Spring of 1950.

Primarily as a service to students studying for degrees in the evening division of the College, summer evening courses were offered for the

I. REGISTRATION STATISTICS—1942-51

Academic Year	Under-graduates, day division	Special students, day division	Totals, day division	Under-graduates, evening division	Special students, evening division	Totals, evening division	Summer Session, evening division	Extension students	Grand Totals (excluding duplicates)
1942-43	.....	.....	.....	230	430	660	.....	119	779
1943-44	.....	.....	.....	222	537	759	.....	96	855
1944-45	.....	.....	.....	302 ¹	462 ²	764	.....	174	938
1945-46	156	720 ³	876	286	438	724	.....	316	1916
1946-47	410	21	431	384	312	696	.....	583	1710
1947-48	517	18	535	350 ⁴	383 ⁴	733	.....	364	1611
1948-49	556	16	572	140 ⁵	464	604	127	295	1516
1949-50	523	24	547	225	389	614	167	354	1587
1950-51	459	25	484	246	395	641	238	465	1762

Notes 1. Including 252 in the Faculty of Arts and an estimated 50 of the 158 in the Institute of Public Administration.

2. Including 354 in the Faculty of Arts and an estimated 108 of the 158 in the Institute of Public Administration.

3. Made up of 271 in special junior matriculation courses for veterans and 449 in special senior matriculation courses for veterans.

4. Division of 733 total into 350 undergraduates and 383 special students is estimated.

5. In the year 1948-49, for the first time, students seeking degrees in the evening division were classified as undergraduates only if they were fully matriculated, i.e. had submitted all necessary certificates and transcripts and had their status as degree candidates clearly established.

II. DEGREES AND DIPLOMAS AWARDED, 1942-50

	B.A.	B.P.A.	B.J.	B.Com.	B.Sc.	Total	Diploma in Engi- neering
1943 } 1944 } 1945 }	(Junior College diplomas of Associate in Arts only)						
1946	—	3	3	—	—	6	—
1947	—	—	1	—	—	1	—
1948	—	4	16	—	—	20	21
1949	40	4	39	21	7	111	21
1950	67	4	28	17	14	130	23

first time in the Summer of 1948. Also in the Summer of 1948, a three-storey brick house at 275 First Avenue was acquired to accommodate the rapidly expanding programme of student extra-curricular activities. In 1951 a modern library building was erected on the southeast corner of the campus.

Enrolment in the various divisions of the College for each year since it was established is shown in table I, and degrees and diplomas awarded year by year are shown in table II.

The Board of Governors

Chairman

HARRY STEVENSON SOUTHAM, C.M.G., B.A., LL.D.

Secretary

CLARENCE CECIL GIBSON, K.C.

Treasurer

VICTOR S. CASTLEDINE, Esq.

Member Ex-Officio

The President of Carleton College
MURDOCH MAXWELL MACODRUM, M.A., Ph.D.

Elective Members

Retire 1951

J. E. COYNE, Esq.	The Honourable Mr. Justice
C. FRASER ELLIOTT, C.M.G., K.C.	I. C. RAND, B.A., LL.B.
W. C. MACARTNEY, D.D.S.	ALLAN C. ROSS, B.Sc.
T. R. MONTGOMERY, Esq.	H. S. SOUTHAM, C.M.G., B.A. LL.D.
	NORMAN F. WILSON, Esq.

Retire 1952

F. E. BRONSON, B.Sc.	W. D. McKEWEN, Esq.
W. M. CONNOR, Esq.	The Honourable NORMAN McL. PATERSON
V. S. CASTLEDINE, Esq.	JOHN E. ROBBINS, M.A., Ph.D.
E. J. JENKINS, B.A.	
A. E. MACRAE, B.Sc.	

Retire 1953

A. A. CRAWLEY, O.St.J., F.C.A.	H. R. T. GILL, Esq.
MCGREGOR EASSON, B.A., D. Paed.	F. C. JENNINGS, B.A.
Col. C. M. EDWARDS, D.S.O.	W. S. KIDD, B.A.Sc.
C. C. GIBSON, K.C.	F. W. WHITE, Esq.

Officers of Administration

President

MURDOCH MAXWELL MACODRUM,
B.A. (Dal.), M.A. (McGill), Ph.D. (Glasgow)

Dean

JAMES ALEXANDER GIBSON, B.A. (U.B.C.), B.A., B.Litt., D.Phil. (Oxon.)

Registrar

EDWARD FLETCHER SHEFFIELD, M.A. (McGill), Ed.D. (New York)

Assistant Registrar

ELIZABETH M. BUCKLEY, B.A. (Queen's)

Medical Adviser

ERIC L. DAVEY, M.D., D.P.H. (Tor.)

Bursar

FREDERICK JAMES TURNER, B.Com., M.A. (Tor.)

Accountant

REGINALD M. WALTERS

Librarian

HILDA G. GIFFORD, B.A., B.L.S. (McGill)

Assistant Librarians

ALBERT SPRATT, B.A., (Sask.), B.L.S. (McGill)
DORIS MAY HONEYWELL, M.A. (Queen's), B.L.S. (Tor.)
HILDA REID COUGLE, M.A., B.L.S. (Tor.)

Senatus Academicus

Members Ex-Officio

MURDOCH MAXWELL MACODRUM, M.A., Ph.D.

President of Carleton College

Professor JAMES A. GIBSON, B.A., B.Litt., D.Phil.

Dean of the Faculty of Arts and Science

Professor LORNE N. RICHARDSON, M.A., M.Sc.

Professor WILFRID EGGLESTON, M.B.E., B.A.

Members appointed by the Board of Governors upon nomination by the Senatus Academicus

Associate Professor M. S. MACPHAIL, M.A., D.Phil.

Associate Professor JOHN M. MORTON, M.Sc., Ph.D.

F. J. ALCOCK, Ph.D., F.R.S.C.

R. A. MACKAY, Ph.D., F.R.S.C.

WALTER B. HERBERT, B.A., LL.B.

WILLIAM KAYE LAMB, M.A., Ph.D., F.R.S.C.

Officers of Instruction

(Some changes and additions will take effect between the date of publication of this calendar and the opening of the session.)

SUMMER 1951

- Harold Lewis Armstrong, M.Sc. (Queen's),
Mathematics
- Robert Daniel Dickie, B.A. (Alberta), M.A. (McGill),
Psychology
- Geoffrey Sherman DuVernet, B.A. (King's),
M.A. (St. Francis Xavier and Toronto),
French
- Adélard Gascon, M.A., Ph.D. (Ottawa), B.Paed. (Montréal),
French
- Frederick J. David Hoeniger, M.A. (Toronto),
English
- Alison Kemp, B.A. (Toronto and Cantab.)
Economics
- Richard James Semple, M.A. (Toronto),
Mathematics
- Paul Noble Somerville, B.Sc. (Alberta),
Mathematics
- Ralph Gordon Stanton, B.A. (Western), M.A., Ph.D. (Toronto)
Mathematics
- Edmund Albert Otto Turnau, M.Sc. (McGill),
Biology
- Norman McQueen Ward, B.A. (McMaster), M.A., Ph.D. (Toronto),
Political Science
- Morris Zaslow, B.A., B.Ed. (Alberta), M.A. (Toronto),
History

WINTER 1951-52

Full-time Instructors

- Alexander Munro Beattie, B.A. (Tor.), A.M. (Columbia),
Assistant Professor of English
- Alfred E. Carlsen, B.A. (U.B.C.), M.A. (Tor.),
Lecturer in Economics
- Dorothy Chamberlin, M.A. (McGill),
Sessional Lecturer in English

- T. James S. Cole, B.Sc. (Eng.) (London), B.Sc. (Carleton), A.C.G.I.,
Lecturer in Physics
- Gordon S. Couse, B.A. (McMaster),
Lecturer in History
- Wilfrid Eggleston, M.B.E., B.A. (Queen's),
Professor of Journalism and Director of the Department
- H. Edward English, B.A. (U.B.C.),
Lecturer in Economics
- David M. L. Farr, B.A. (U.B.C.), M.A. (Tor.),
Lecturer in History (on leave of absence, 1951-52)
- Agnes Y. Fleming, B.Com., B.Ed. (Alta.), M.Com. (Tor.),
Assistant Professor of Commerce
- Paul W. Fox, M.A. (Tor.),
Assistant Professor of Political Science (on leave of absence, 1951-52)
- R. Bruce Gamble, B.Sc. (McGill),
Sessional Lecturer in Engineering
- James A. Gibson, B.A. (U.B.C.), B.A. B.Litt., D.Phil. (Oxon.),
Professor of History
- H. Scott Gordon, B.A. (Dal.), A.M. (Columbia),
Assistant Professor of Economics
- James M. Holmes, B.Sc. (U.N.B.), M.A. (Western), Ph.D. (McGill),
Assistant Professor of Chemistry
- George M. Hougham, M.A. (Tor.),
Lecturer in Political Science
- William John Huggett, M.A. (Tor.),
Lecturer in Philosophy
- William Irwin Illman, B.A., M.Sc. (Western),
Assistant Professor of Biology (Botany)
- Doris I. Inch, M.A. (Tor.),
Lecturer in Spanish
- George B. Johnston, M.A. (Tor.),
Assistant Professor of English
- Hans Jonas, Ph.D. (Marburg),
Associate Professor of Philosophy
- Wilfred H. Kesterton, B.A. (Queen's), B.J. (Carleton),
Lecturer in Journalism
- Norman D. Lane, B.A. (Queen's), M.A., Ph.D. (Tor.),
Assistant Professor of Mathematics
- Paul MacDonell Laughton, B.A. (Tor.), M.Sc. (Dal.), Ph.D. (Wisconsin),
Lecturer in Chemistry
- G. Ross Love, M.A. (Western), Ph.D. (Tor.),
Assistant Professor of Physics

- M. M. MacOdrum, B.A. (Dal.), M.A. (McGill), Ph.D. (Glasgow),
Lecturer in English
- M. S. Macphail, B.A. (Queen's), M.A. (McGill), D. Phil. (Oxon.),
Associate Professor of Mathematics
- John W. Mayne, B.Sc., M.A. (Acadia), M.Sc. (Brown),
Assistant Professor of Mathematics (on leave of absence, 1951-52)
- Virginia Ann McDonald, B.A. (Carleton),
Assistant in Philosophy
- William John McDougall, B.A. (Western), C.A.,
Associate Professor of Accounting
- C. G. Stewart McKeown, M.A. (Tor. and Princeton),
Assistant Professor of Philosophy (on leave of absence, 1951-52)
- John M. Morton, M.Sc. (Dal.), Ph.D. (Princeton),
Associate Professor of Chemistry
- Allan M. Munn, B.Sc. (Queen's), M.Sc., Ph.D. (McGill),
Assistant Professor of Physics
- Herbert H. J. Nesbitt, B.A. (Queen's), M.A., Ph.D. (Tor.), F.R.E.S.,
Associate Professor of Biology
- Mary Anne Phillips, M.A. (Tor.), Assistant in English
- John A. Porter, B.Sc. (Econ.) (London),
Lecturer in Sociology
- Lorne N. Richardson, M.A. (Tor.), M.Sc. (McGill),
Professor of Mathematics
- Donald C. Rowat, B.A. (Tor.), A.M., Ph.D. (Columbia),
Assistant Professor of Political Science
- Donald M. Shepherd, M.A. (Queen's),
Lecturer in Classics
- Ernest W. Stedman, C.B., O.B.E., M.I.C.E., M.E.I.C., F.R.Ae.S., F.I.Ae.S.,
M.I.M., A.R.C.Sc., Assistant Professor of Engineering
- Audrey Elizabeth Strutt, B.A. (Tor.),
Assistant in English
- Stanley G. Tackaberry, C.B.E., B.A.Sc. (Tor.),
Sessional Lecturer in Engineering
- James S. Tassie, B.A. (McMaster), M.A. (Tor.),
Lecturer in French
- Edmund Albert Otto Turnau, M.Sc. (McGill), Lecturer in Biology
- Gordon James Wood, M.A. (Tor.),
Lecturer in English
- J. Perry Young, B.A. (Queen's), D. ès L. (Bordeaux),
Assistant Professor of French
- Morris Zaslow, B.A., B.Ed. (Alta.), M.A. (Tor.),
Lecturer in History

Sessional Lecturers, Part-Time

F. J. Alcock, B.A. (Tor.), Ph.D. (Yale), F.R.S.C., F.G.S.A.	Geology
Fedor P. Bohatirchuk, M.D. (Kiev.)	Russian
Thomas W. Cook, M.A. (Acadia), Ph.D. (Yale)	Psychology
Murray E. Corlett, B.A. (Tor.)	Commerce
Stephen A. Czako, M.Com., Dr.rer.pol. (Budapest), Dip. Int. Law (Harvard)	History
Douglas Keith Dale, B.A. (Queen's)	Mathematics
W. S. A. Dale, M.A. (Tor.)	Fine Arts
John Frederick Dawe, B.Sc., B.Ed. (Sask.), A.M. (Columbia)	Psychology
Walter E. Duffett, B.Com. (Tor.), M.Sc. (Econ.) (London)	Economics
Florence S. Dunlop, B.A. (Queen's), A.M., Ph.D. (Columbia)	Psychology
J. G. Enns, M.A. (McMaster)	Mathematics
Eugene A. Forsey, M.A. (McGill and Oxon.), Ph.D. (McGill)	Political Science
Gordon F. Henderson, B.A. (Tor.)	Public Law
Walter B. Herbert, B.A., LL.B. (Alta.)	Journalism
Richard Hoff, Dr. jur. (Breslau)	German
Robert H. Hubbard, B.A. (McMaster), A.M., Ph.D. (Wisconsin)	Fine Arts
Nathan Keyfitz, B.Sc. (McGill)	Statistics
Danilo I. Lalkow, M.D. (Moscow)	Russian
J. Douglas Leechman, B.Sc. (St. Patrick's), M.A., Ph.D. (Ottawa)	Journalism
Helen R. MacDonald, B.A. (Tor.)	French
Robert Alexander MacKay, B.A. (Tor.), Ph.D. (Princeton), F.R.S.C.	Political Science
June Helm MacNeish, Ph.B., A.M. (Chicago)	Anthropology
Leslie McFarlane	Journalism
Robert McKeown, B.A. (U.B.C.)	Journalism
J. M. McQueen, M.A. (Tor.)	History
Myron McTavish, Mus. Bac. (Tor.), L.T.C.M. F.A.G.O., Ch.M., F.C.C.O.	Music
Carman H. Milligan, Mus. Bac. (Tor.)	Music
Peter Mackenzie Millman, B.A. (Tor.), A.M., Ph.D. (Harvard)	Astronomy
Vincent Pask	Journalism
R. A. J. Phillips, B.A. (Tor.)	Political Science

Fred T. Rabbitts, B.Sc. (McGill)	Chemistry
L. W. Rentner, B.A. (Tor.)	Mathematics
S. C. Robinson, M.A.Sc. (U.B.C.), Ph.D. (Queen's)	Geology
Elizabeth June Rogers, B.A. (Tor.), A.M. (George Washington)	Psychology
Charles F. Scott, B.A. (Tor.)	Public Law
W. H. Showman, M.A. (Queen's)	Latin
A. A. Sterns, Lic.com. (St. Gallen), Dr.rer.pol. (Berne)	Accounting
Agnes C. Sweeney, B.A. (Queen's)	Latin
James Wreford Watson, M.A. (Edin.), Ph.D. (Tor.), F.R.G.S.	Geography
Jessie Wilson Watson, M.A. (Edin.)	Geography
George S. Watts, M.A. (Queen's)	Economics
Fred E. Whitworth, B.A. (Sask.), A.M., Ph.D. (California)	Psychology
Alice E. Wilson, B.A. (Tor.), Ph.D. (Chicago), F.R.S.C., F.G.S.A.	Palaeontology
Morley E. Wilson, B.A. (Tor.), Ph.D. (Yale), F.R.S.C., F.G.S.A., F.A.A.S.	Geology
R. F. Wilson, B.A. (Queen's)	Mathematics
Harry Wood, C.A.	Accounting

Summary of Courses Offered

IN THE DAY DIVISION

Courses leading to the degrees of:

Bachelor of Arts (B.A.)

Pass Course, four years from Junior Matriculation (see p. 39).

General Honours Course, five years from Junior Matriculation (see p. 42).

Specific Honours Courses, five years from Junior Matriculation (see p. 43).

Bachelor of Arts in Public Administration (B.A.)

Honours Course in Public Administration, five years from Junior Matriculation (see p. 46).

Bachelor of Journalism (B.J.)

Four years from Junior Matriculation (see p. 49).

Bachelor of Commerce (B.Com.)

Four years from Junior Matriculation (see p. 53).

Bachelor of Science (B.Sc.)

Pass Course, four years from Junior Matriculation (see p. 56).

Specific Honours Courses, five years from Junior Matriculation (see p. 57).

Course leading to:

Diploma in Engineering

Two years from Senior Matriculation or equivalent standing, or three years from Junior Matriculation.

Students completing the Engineering course at Carleton College may, if recommended, be admitted to the third year of Engineering courses at another university, e.g., McGill University, Queen's University or The University of Toronto, where they may qualify in two additional years for a degree in Engineering. (See p. 60).

Alternatively, students completing the Engineering course at Carleton College may transfer to the course leading to the degree of Bachelor of Science with Honours in Applied Physics, which involves two additional years of study in Carleton College. (See p. 59).

IN THE EVENING DIVISION

Courses leading to the degrees of:

Bachelor of Arts (B.A.)

Pass Course, involving the completion of twenty subjects after Junior Matriculation. (See p. 39).

Bachelor of Commerce (B. Com.)

A course involving the completion of $20\frac{1}{2}$ subjects after Junior Matriculation. (See p. 53).

Bachelor of Science (B.Sc.)

Pass Course, involving the completion of twenty subjects after Junior Matriculation. (See p. 56).

Course leading to:

Diploma in Public Service Studies

A course for those with at least Junior Matriculation standing or the equivalent, involving the completion of ten subjects. (See p. 48).

Courses for those who are not degree candidates:

Subjects in the degree courses are open to persons who do not wish to study for a degree, providing that they have the required background for the courses they choose. (See pp. 65 ff.).

As an extension service, non-degree courses in subjects of cultural and vocational value are open without specific admission requirement to members of the public. (See special bulletins issued by the Extension Department.)

General Information

Class Hours

Most classes (day and evening) meet for three hours a week. Those involving laboratory work usually meet for that purpose for an additional two or three-hour period once a week.

Each summer session class meets for two and one-half hours on each of two evenings a week.

Class timetables are published separately for the day and evening divisions, and may be obtained from the Registrar's Office.

Facilities

The College is housed in a four-storey brick building, set on a small campus in the Glebe, one of Ottawa's residential districts, about ten minutes by street car or bus from the centre of the City.

In addition to classrooms and seminar rooms, facilities include engineering, chemistry, biology, geology and physics laboratories; an audio-visual aids centre including equipment for sound motion picture projection, film-strip and slide projection, and radio workshop activities; a canteen; an assembly hall, equipped for stage productions. Nearby is a three-storey students' union and a recreation building which provide accommodation for Students' Association offices, *The Carleton* (student weekly newspaper), reading rooms, games rooms, darkrooms, radio broadcasting rooms, club rooms and a student lounge. Athletic activities are carried on in the gymnasium and playing fields of Lansdowne Park about six blocks from the College.

Completed in 1951, a new library building provides study space for 200 students at one time and accommodates 40,000 volumes.

Student Activities

All students in the day and evening divisions of the College are members of, and pay the fees set by, the Students' Association. The Students' Council, executive body of the Association, is elected by the students in the spring of each year.

Activities sponsored by the Students' Association, through its Council, include the publication of a weekly newspaper, *The Carleton*; dances and parties; women's, dramatics, radio, short story, poetry, choral, language and camera clubs; chess, bridge and sports clubs; commerce, science and engineering societies; a college band, a debating society, a model parliament and political clubs; welfare fund campaigns; and a wide variety of educational and recreational programmes.

An Athletic Board, composed of representatives of faculty and students, supervises a sports programme which includes both intramural and intercollegiate athletics.

Military Training

UNIVERSITY NAVAL TRAINING DIVISION. The University Naval Training Division has been established to select and train suitable young university students for commissioned rank in the Royal Canadian Navy and the Royal Canadian Navy (Reserve).

Entry. Entry into the U.N.T.D. is open to all suitable male undergraduates attending Canadian universities and colleges. Candidates must be medically fit, over 17 years of age, have a sound academic record and possess the necessary officer-like qualities.

Selected candidates will undergo a four-year training course which includes training at local naval divisions during the academic year, and in ships and establishments of the Atlantic and Pacific Commands during the summer months.

Undergraduate students are entered into the U.N.T.D. in the specialist branches to which their academic fields are allied.

Selection. During the first year of training, all U.N.T.D. men come before a selection board to determine their suitability for commissioned rank. Successful candidates are promoted to the rank of Cadet R.C.N. (R). Candidates who fail the board are given the opportunity to repeat the training year and appear before the selection board again.

Training. The U.N.T.D. training programme during each of the academic years consists of divisional drills held at H.M.C.S. "Carleton", Dow's Lake, one night every week.

U.N.T.D. cadets must train ashore and afloat during at least two summers of their service. This may include the entire summer vacation period. These periods are spent in ships and establishments of the Atlantic and Pacific Commands, and all U.N.T.D. cadets must pass certain courses in order to qualify for a commission in either the R.C.N. or the R.C.N.(R.) A large part of the summer training period is spent aboard ships of the R.C.N. and foreign ports are frequently visited. The first summer of required training is devoted to a general course for personnel of all branches. During subsequent summers the training programme provides specialist training in each branch.

Pay. Cadets are paid for all training, including divisional drills at a rate equivalent to that prescribed for Acting Sub-Lieutenants, \$162 per month. Cadets and men receive half a day's pay for every divisional drill during the academic year. When travelling on duty from the parent naval division to Halifax, N.S., or Esquimalt, B.C., for summer training, cadets receive travelling expenses and are paid for the days during which they are travelling. In addition to actual payment and expenses, U.N.T.D. cadets are provided with uniforms, lodgings, medical and dental care at public expense during the summer training period.

Commissions in the Permanent Force. Cadets wishing to make the Permanent Force a career must spend at least three full summers under training. Normally applications are considered during the third year. Those cadets deemed suitable by both a Professional and a Selection Board, and who are medically fit, are attested into the Permanent Force shortly before their final year at university. They then receive full pay and allowances during this year at university and upon graduation are allocated for further training.

Commissions in the Reserve Force. Upon graduation and successful completion of the U.N.T.D. training programme, cadets are promoted to the rank of Sub-Lieutenant and appointed to a naval division on either the Active or Retired Lists of the R.C.N.(Reserve).

Information. For further particulars apply to:—Lt. Cdr. Jacques Bonneau, R.C.N.(R), Commanding Officer, U.N.T.D., H.M.C.S. "Carleton", Dow's Lake, Ottawa.

CANADIAN OFFICERS' TRAINING CORPS. The Carleton College contingent of the Canadian Officers' Training Corps was organized in the fall of 1949. It operates under a programme laid down by the Department of National Defence.

Purpose. Purpose of the programme is to qualify selected college undergraduates for a commission in the Canadian Army in corps appropriate to their educational qualifications.

Eligibility. To be eligible for selection candidates must be proceeding to a college or university degree. They must be Canadian citizens or British subjects normally resident in Canada, and must meet the age and physical requirements of their respective corps. Candidates are chosen by an Officers' Selection Board.

Training Programme. The training programme is divided into theoretical and practical phases. The former are given at the College during the academic year and consist of lectures, discussions and demonstrations on military subjects in each of three years. These are conducted by the Resident Staff Officer and members of the faculty, and are designed to supplement the detailed and practical knowledge gained during summer vacation training in the practical phases which involve a series of attachments to the Canadian Army, Active Force, for a maximum period of four months each summer. Training here includes the study of and practical training in general military subjects and subjects special to the corps in which the candidate is preparing for a commission.

What it leads to. Successful completion of three years of the theoretical phase and three summer vacation periods, practical phase, qualifies candidates as captains (Reserve Force) or lieutenants (Active Force), while two complete years of training qualifies candidates as

lieutenants (Reserve Force). Successful cadets are eligible for appointment to the Canadian Army Active Force upon graduation or they may be posted to a reserve unit or to the Supplementary Reserve.

Status and Pay. Candidates are appointed as officer cadets, which temporary rank they hold throughout the C.O.T.C. training period, so long as they remain suitable as potential officers. Cadets are entitled to pay and allowances for each day of duty at rates laid down for temporary second-lieutenants, Canadian Army, Reserve Force. This is \$162.00 per month, with lodging, board, and medical care for single officers, and \$202.00 per month for married officers. Cadets are paid for all theoretical and practical phases except the first year theoretical phase.

Further information and details may be obtained from: Officer Commanding, Second-in-Command, or Resident Staff Officer.

Student Services

Health. Under the supervision of the College Medical Adviser a Student Health Service is provided for the protection and promotion of the health of the student body. Its primary purposes are:

- (1) To supervise the health of all full-time students and to ascertain their fitness for academic work.
- (2) To investigate the physical fitness of all students who wish to participate in college athletic and recreational activities.
- (3) To provide a health consultation and advisory service for students. Those with serious health defects are referred for treatment as necessary.
- (4) To provide emergency treatment and medical care for athletic injuries and minor illnesses.
- (5) To plan a health education programme designed to conserve and promote the overall health of the student body.

Prior to initial registration at the College, each full-time student is required to submit, on a personal health record form provided by the College, a certificate of medical examination performed by his family physician. In addition, each full-time student shall have a chest X-ray as early as possible in the first year of his attendance at the College. Arrangements for such X-rays will be made by the College free of charge. Part-time students also are encouraged to participate in the X-ray programme. Chest X-ray facilities are available throughout the student's academic career.

(Students who object to these examinations on religious grounds will provide the Medical Adviser with a written statement of the grounds on which they object.)

Each year before participating in College athletic activities, each student will report to the Medical Adviser and obtain a certificate of medical fitness which will be submitted to the appropriate sports officer.

The Medical Adviser will re-examine any student he considers should be given further attention, as indicated by his review of pre-registration health record forms. Any student requesting re-examination may avail himself of the services of the Medical Adviser who will be available in his office in the main building at stated periods.

The College is not responsible for expenses incurred as a result of injuries sustained by students while participating in athletic activities. Information regarding available accident insurance may be had on request from the College Bursar.

The health service fee is stated on p. 25.

Employment. A Student Placement Service is operated by the College. Located in the Registrar's office, it offers assistance to students in obtaining part-time employment during the academic year, full-time employment during the summer vacation period and permanent employment upon graduation. Assistance is offered to alumni of the College at any time.

The Student Placement Service cooperates closely with the National Employment Service and the Civil Service Commission of Canada.

Housing. The College has no dormitories of its own but a housing registry is maintained in the office of the Registrar, offering assistance to students wishing rooms or rooms with board. Such rooms are available within easy walking distance of the College.

Cost of room and board is about \$55 to \$65 a month. A room with breakfast and dinner rents for \$45-\$55 a month; with breakfast only, \$30-\$35; without meals, \$20-\$25; room with grill, \$30-\$35.

Numerous requests are received for students who will do part-time work in the home in return for their room and board.

Food. A canteen is located in the main College building. Several restaurants are within easy access of the College.

Counselling and Guidance. Members of the administrative and instructional staffs of the College are anxious to be of assistance to students in their planning of educational programmes, their choice of careers and in the solution of their personal problems.

Lectures and discussions on study methods, the use of the college library, the college curricula, the choice of a career, and related topics

are arranged for new students in the day division during their first year at the College.

A library of occupational information is at the disposal of students (in the Registrar's Office), occasional lectures on specific occupational fields are arranged, and guidance in methods of seeking employment is provided.

The counselling services of the Department of Veterans' Affairs also are available to student veterans.

Academic Costume

The academic hood of Carleton College is of the design specified in the United States Intercollegiate Code for the bachelor's degree. It is of simple shape, made of black stuff, and lined in silver with two chevrons of equal width inserted, the chevron nearer the neckline, red, and the chevron nearer the peak of the cowl, black. The border of the hood denotes the degree awarded, according to the following colour combinations. Arts: white; Journalism: white with a cord of black superimposed upon the border, set in $\frac{1}{4}$ " from the lower edge; Science: golden yellow; Commerce: drab; Public Administration: drab with a cord of dark brown superimposed upon the border, set in $\frac{1}{4}$ " from the lower edge.

Fees

Tuition Fees

In courses other than Engineering:

- | | |
|-----------------------------------------------------------------|----------|
| (a) Tuition, per subject..... | \$ 48.00 |
| (Honours students, per year, \$240) | |
| (b) Additional for each subject involving laboratory work | 15.00 |

e.g. A full-time day student taking five subjects, one of them involving laboratory work, would pay tuition amounting to \$255.

A part-time evening student taking two subjects, one of them involving laboratory work, would pay tuition amounting to \$111.

Engineering:

- | | |
|--------------------------------------------------------------------------|--------|
| (a) Tuition, per year of two terms..... | 330.00 |
| (b) Additional for summer survey camp, payable at end of first year..... | 35.00 |

Miscellaneous Fees (winter session only)

- | | |
|---------------------------------------------------------------------------------------|-------|
| (a) Full-time students, per year..... | 20.00 |
| (Students' Association \$8, Athletics \$5, Social activities \$5, Health service \$2) | |
| (b) Part-time students, per subject..... | 2.00 |
| (Students' Association \$1.50, Athletics 50c—Maximum \$5 per student) | |

Examination Fees

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| (a) Supplemental examination, per paper..... | 3.00 |
| (b) Special examination, per paper..... | 5.00 |
| (c) When examinations are written at a centre other than Carleton College the student will pay the fee stated above plus the costs of mailing and supervision. | |

Graduation Fee

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Payable on or before April 1st of the graduating year..... | 12.50 |
| (This fee covers the ordinary expenses of the graduation exercises and, in addition, the cost of providing hoods and gowns for the use of the graduating class.) | |

Transcript Fee

- | | |
|----------------------------------------------------------------------------------------------------------|------|
| For each transcript of academic record, except for the first two which are supplied free of charge | 1.00 |
|----------------------------------------------------------------------------------------------------------|------|

Deferred Payment Fee

Payable when fees are paid in instalments:

- | | |
|------------------------------------|------|
| (a) For two courses or less..... | 2.00 |
| (b) For more than two courses..... | 5.00 |

Fees may be paid by any of the following plans:

1. Payment in full at the time of registration.
2. Payment in *two* instalments:
 - (a) At registration— $\frac{1}{2}$ of the total tuition, *plus* Miscellaneous Fees (where applicable), and Deferred Payment Fee (see above).
 - (b) At or before mid-session—the remaining half of the total tuition fee.
6. Payment in *six* instalments (winter session only):
 - (a) At registration— $\frac{1}{6}$ of the total tuition, *plus* Miscellaneous Fees (where applicable), and Deferred Payment Fee (see above).
 - (b) On the 15th of October, November, December, January and February— $\frac{1}{6}$ of the total tuition fee.

FINANCIAL AID FOR STUDENTS

1. The College welcomes the offer of scholarships, prizes, medals, bursaries and loan funds.
2. Scholarships, prizes, medals, bursaries and loan funds may be accepted from donors at the discretion of Senate on appropriate recommendation of the President. Awards of scholarships, prizes and medals will be made by Senate to qualified candidates of merit; but the Senate may withhold any such award if no candidates of merit present themselves. The award of scholarships, prizes and medals shall be final when formally announced by the College.
3. The standing of students being considered for any such awards shall be determined on the basis of courses taken for credit and shall not take account of extra courses being taken for no credit.
4. (a) No limitation shall be placed upon the number of prizes and medals which any one student may win in any one year. (b) A student may be declared the winner of as many scholarships as he may win as a qualified candidate of merit but, in the case of awards carrying a major financial amount, such student will normally receive the proceeds only of the largest among these major amounts. (c) Winners of scholarships and prizes may resign the monetary value but retain the honour of such awards, and their names will be published as winners. In cases arising under 4(b) or 4(c), the monetary amounts so relinquished may be awarded *by reversion* if merited.

5. Students who may apply for entrance scholarships at colleges or universities other than Carleton College will not be restricted in applying for similar scholarships at Carleton College.
6. Undergraduate scholarships and bursaries under the jurisdiction of the College will ordinarily be paid in two instalments, one in October and one in January and provided that the winners are continuing in their courses to the satisfaction of the College. If the work of a student in the first term has been unsatisfactory, payment for the second term may be withheld.
7. The College does not guarantee the award of any scholarship, prize, medal or bursary other than those created from funds of the College. Those awards based upon gifts of individuals or associations other than the College will be awarded only after the funds required have actually been received from the donors.

Scholarships

A. Undergraduate Scholarships tenable at Carleton College

Mercy Neal Southam Entrance Scholarships.

In the fall of 1951 seven \$500 scholarships will be awarded to students entering the second year of Arts, Journalism, Commerce or Science, or the first year of Engineering, at Carleton College. One will be awarded, if merited, to the applicant with highest standing from each of the following: Glebe Collegiate Institute, Lisgar Collegiate Institute, Nepean High School, Ottawa High School of Commerce, Ottawa Technical High School, and the first year of Carleton College, and one to the applicant with highest standing from schools (other than those in Ottawa) in the counties of Renfrew, Lanark, Carleton, Russell, Prescott, Glengarry, Stormont, Dundas, Grenville and Leeds.

Funds for three of these scholarships are endowed by bequest of the late Wilson Mills Southam. Three are provided by his brother, Harry Stevenson Southam, C.M.G., LL.D. The scholarships are in memory of their grandmother, Mercy Neal Southam. The seventh will be available only in 1951, 1952 and 1953, from additional funds accruing from the bequest of the late Wilson Mills Southam.

Scholarship applications, accompanied by a formal application for admission to course, and supported by a letter of recommendation from the High School Principal, must be submitted to the Registrar, Carleton College, not later than May 1, 1951, on forms available from the College. To be eligible, a student must be qualified academically and physically for admission without conditions to one of the courses named.

Candidates from the secondary schools must write at least *six* Grade XIII final examination papers in 1951 and will be judged on their *eight*

best papers. Candidates from the first year at Carleton College must have written final examinations in at least five subjects in the spring of 1951 and will be judged on all five. Final selection will be made by the President of the College on recommendation by the Committee on Studies.

The scholarships will be paid in two instalments—\$250 in the fall of 1951 (\$200 applied to tuition, \$50 cash) and, if the winner is still in attendance and making satisfactory progress, \$250 in the fall of 1952 (\$200 applied to tuition, \$50 cash).

Ottawa Business and Professional Women's Club Scholarship.

Value \$100. Awarded annually to the girl entering Carleton College with the highest matriculation standing from Ottawa collegiates and high schools.

Canadian Legion Scholarships.

The Dominion Command, Canadian Legion, B.E.S.L., offers one scholarship, valued at \$400, and the Ontario Command offers additional scholarships, valued at \$300 each, to be awarded to secondary school graduates entering university in the autumn of 1951. They will be awarded only to persons who are eligible for membership in the Canadian Legion or to the children of deceased veterans or to the children of parents either of whom is eligible for membership in the Canadian Legion. At least one scholarship will be awarded, if merited, to a student resident in each Legion District of the Ontario Command, upon entry to a college or university in Ontario. Application should be made by June 30 to the Provincial Secretary, Ontario Command, Canadian Legion, 82 Charles Street East, Toronto.

Ottawa Women's Canadian Club War Memorial Scholarship.

Value approximately \$100.00. Awarded annually to a student progressing from first to second year in Carleton. Preference is given to veterans.

Rotary Club of Ottawa Awards.

One of \$100.00 awarded annually to a student of outstanding ability proceeding from the second to the third year of course in Carleton College.

One of \$100.00 awarded annually to a student of outstanding ability proceeding from the third to the fourth year of courses in Carleton College.

Falkland Chapter (I.O.D.E.) Scholarship.

Value \$75.00. To be awarded to an outstanding student progressing from one year of course to another in Carleton College. Donor: Falkland Chapter, I.O.D.E. Established 1950.

Clendinnen Scholarship in Biology.

Value \$75.00. Awarded annually to an outstanding student proceeding from the fourth to the fifth year of the honours course in biology at Carleton College. Established 1951, in memory of Mr. and Mrs. T. E. Clendinnen, by their daughter.

B. Post-graduate Scholarships tenable elsewhere

Students are invited to watch the College bulletin board for notices of scholarships, and to consult the Registrar who has a number of publications outlining fellowships and scholarships available for study in the various universities in Canada and abroad.

*Prizes**B'nai B'rith Award.*

Value \$25. Awarded annually to the student who in the judgment of the President of the College is the outstanding student in first year, whether in Arts, Science, Commerce, Journalism or Engineering.

Faculty Club Prize.

Value \$25. Awarded by the Faculty Club of Carleton College to a student chosen by the President of the College.

German Language Club Prize.

Value \$25. To be awarded to a student of German chosen by the President of the College.

Jakob Wassermann Prize in German.

Value \$75. To be awarded for excellence in the study of German language and literature. Donor: Mrs. Marta B. Wassermann. Established 1950.

National Council of Jewish Women Award.

Value \$25. To be awarded on the recommendation of the Department of History to the student achieving the best standing in Canadian History. Donor: National Council of Jewish Women, Ottawa Section. Established 1950.

Lilian I. Found Prize for Poetry.

Value \$25. Offered annually for the best lyric of fifty lines or less submitted by an undergraduate of Carleton College by March 15. Details may be obtained from the Registrar's office. Donor: Mrs. Lilian I. Found. Established 1950.

Chemical Institute of Canada Prize.

Value \$25. To be awarded as a book prize to the best student proceeding to the final year of the course leading to the degree of Bachelor of Science with honours in Chemistry. Donor: The Chemical Institute of Canada. Established 1950.

Engineering Institute of Canada Prizes.

For proficiency in engineering studies, a book prize of the value of \$15 will be awarded to a student completing second-year Engineering, and one of the value of \$10 to a student completing first-year Engineering. Donor: Ottawa Branch, Engineering Institute of Canada. Established 1947.

D. F. McKechnie Prize in Accounting.

The yield of a \$200 fund will be used each year to purchase a book prize to be awarded, when merited, to a graduating student in Commerce for proficiency in the study of accounting. Donor: D. F. McKechnie, C.P.A. Established 1951.

American Society for Metals Prize in Engineering.

Value \$25.00. To be awarded to a student with high standing in the first year of the Engineering course. Donor: Ottawa Valley Chapter, American Society for Metals. Established 1951.

Medals

Awarded annually, when merited, to the graduating students standing highest in Arts, Science, Commerce and Journalism.

Bursaries

Applications for Dominion-Provincial Student-Aid Bursaries, Type A, and for Rotary Club and Lions Club "Scholarships" (for students entering university from secondary school) should be made through secondary school principals. Applications for Dominion-Provincial Student-Aid Bursaries, Type B (for students progressing from one year to another in university) should be made through the College Registrar after the commencement of fall classes.

Applications for all other bursaries listed below should be made to the College Registrar not later than August 31st.

Dominion-Provincial Student-Aid Bursaries.

Value up to \$400.00 each and tenable at the various colleges and universities of Ontario, including Carleton College. They are awarded to "students of good character, whose health and physical fitness are satisfactory, who meet the required academic standing, and who, without financial assistance, could not continue their formal education".

Rotary Club of Ottawa "Scholarships".

Value up to \$400.00 each, awarded annually, on the basis of scholarship and financial need, to students from Ottawa schools entering a college or university in Ottawa. One or more of these may be held at Carleton College.

Lions Club of Ottawa "Scholarships".

Value up to \$400.00 each. Awarded annually to Ottawa students who, without financial assistance, could not continue their formal education. These may be held at Carleton College.

Ottawa Superfluity Shop Bursaries.

➤ An annual sum of approximately \$180.00 is available to provide bursaries for veterans of World War I or World War II, or for the descendants of such veterans, who are students in good standing at Carleton College and in need of financial assistance.

Ottawa Citizens War Services Committee Bursaries.

➤ An annual sum of approximately \$60.00 is available to assist veterans, their dependents or descendants, who are students in good standing at Carleton College and are in need of financial assistance.

Gyro Club Bursaries.

Two bursaries of \$125 each. Awarded annually to male students of promise who have completed at least one academic year at Carleton College, who have specific professional or vocational goals, and who, without financial assistance, could not continue their formal education. Donor: Gyro Club of Ottawa.

Atkinson Charitable Foundation Bursaries.

The sum of \$2,000 is available to assist students of Carleton College in the academic year 1951-52. Approximately one-half of this sum will be awarded to students entering the College and one-half to students progressing from one course-year to another. Terms of award are as follows:

1. In addition to scholastic merit and financial need, goal and promise will be considered in selecting recipients.
2. Candidates must be residents of Ontario.
3. Applications may be for sums up to \$500.
4. An applicant may be entering or continuing, as a full-time undergraduate, in any course at Carleton College.
5. For one of the awards, preference will be given to candidates intending later to pursue studies in Theology.
6. Applications should be made on forms available from the Registrar's Office, not later than August 31, 1951.

Donor: The Atkinson Charitable Foundation. Offered for the first time in 1951, as an experiment in the provision of financial aid to students.

R. A. Beamish Bursary.

Value: approximately \$250. Awarded annually to a student entering or progressing from one academic year to another who, without

financial assistance, could not continue his or her formal education. To be eligible, an applicant must be a resident of one of the eleven eastern counties of Ontario (Renfrew, Frontenac, Lanark, Leeds, Carleton, Grenville, Russell, Dundas, Prescott, Glengarry, Stormont). Donor: The R. A. Beamish Foundation. Established 1951.

Loan Funds

The college administers several small but growing loan funds which are available for short and long term loans to students in need of temporary financial aid.

Loans made from funds held in trust by the College are limited to \$250 a year for any one student, with a maximum of \$600 total to one student. They are repayable after termination of undergraduate studies, and bear interest at the rate of 3% per annum beginning January 1st following completion of course. To be eligible for a loan from one of these funds a student must have a satisfactory academic record and be able to show that he could not continue his studies without financial assistance.

General Loan Fund. Unrestricted. Founded by Kenneth Brewster. Other donors: Women of Rotary, Office Staff Club of Carleton College, F. J. G. Cunningham, and several anonymous donors.

Journalism Loan Fund. Reserved for students in the course leading to the degree of Bachelor of Journalism. Founded by The Canadian Women's Press Club, Ottawa Branch. Other donors: Rielle Thomson, Kenneth Wilson, Blair Fraser, Canadian Pulp and Paper Association.

Commerce Loan Fund. Preference is given to students in the course leading to the degree of Bachelor of Commerce. Founded by the class of Commerce '49. Other donors: Class of Commerce '50.

Zonta Club Loan Fund. Reserved for women students. Donor: The Zonta Club of Ottawa.

Lady Perley Chapter (I.O.D.E.) Loan Fund. Preference is given to veterans. Donor: Lady Perley Chapter, I.O.D.E.

Laurentian Chapter (I.O.D.E.) Loan Fund. Preference is given to students who are British by birth. Donor: Laurentian Chapter, I.O.D.E. Established 1950.

Faculty Loan Fund. The fund exists to give assistance, in the final two years of course, to students who without financial aid would not be able to complete their studies. Recipients are morally but not legally obligated to repay the amounts received, at some time after graduation, and in addition to contribute some additional sum either to this fund or to an alumni bursary fund if it is in existence. Donors: Members of the Faculty and graduates of the College.

Arrangements may be made, on occasion, for assistance from funds administered by other organizations, among which are:

Veterans' University Loan Fund. Administered for the Department of Veterans Affairs to aid student veterans who are in receipt of allowances but need assistance to meet emergency expenses.

Canadian Naval Service Benevolent Trust Fund. This fund is to relieve distress and promote the well-being of naval personnel and their dependents both while serving and after discharge. Assistance from this fund may be approved either as a grant or a loan, depending upon circumstances.

Army Benevolent Fund. This fund exists to provide financial assistance to Army veterans in need. A student veteran may be considered for such assistance, however, only when he has received the maximum assistance for which he is eligible from the Veterans' University Loan Fund or when the Army Benevolent Fund Committee agrees that it would not be in the best interests of the veteran's welfare to request him to undertake the responsibility of the repayment of a loan.

R.C.A.F. Benevolent Fund (University Loan Fund). This fund was planned to assist in the education of discharged members of the R.C.A.F., their children and children of deceased personnel. Sums up to \$300 may be borrowed and are repayable out of the following summer's earnings.

Rotary University Student Loan Fund. The Rotary Club of Ottawa administers a Student Loan Fund to assist worthy students, during their junior and senior years, to complete a regular university course at any recognized university in Canada. To be eligible an applicant must be a Canadian citizen, resident in the County of Carleton, Ontario, and a student in good standing eligible to enter the junior or senior year. Maximum loan is \$250 in one year, \$500 total.

Harry F. Bennett Educational Fund. Administered by the Engineering Institute of Canada, this fund is available to provide financial assistance to needy students who have successfully completed their first year in engineering or the equivalent.

Further information regarding these sources of financial aid may be had from the Registrar.

WITHDRAWAL AND REFUND

Students who are forced to withdraw from a course, or from the College, are required to notify the Registrar in writing and to give their

reasons for withdrawal. The College assumes the obligation of carrying the student and accommodation on a yearly basis. Therefore:

- (a) All tuition credits and refunds shall be made entirely at the pleasure of the College.
- (b) Credits or refunds will be granted only as follows:
 - (1) Cash refunds may be granted in cases where students are compelled to withdraw on account of serious and continued personal illness.
 - (2) In case a student who is regularly employed during the day is sent out of the city permanently by his employer or compelled so to change his working hours as to prevent his continuing at the College, a refund may be granted.
 - (3) Cash refunds may also be granted in cases where the student is compelled to withdraw for other personal reasons, provided that these reasons are satisfactory to the College authorities.
- (c) Tuition not refunded or used may, if a certificate of credit is secured from the Bursar, be applied upon subsequent courses pursued in the College, provided such courses are taken within two years of the date of withdrawal of the student.
- (d) Miscellaneous fees and Deferred Payment fees are not refundable.
- (e) The portion of the tuition fee refunded is determined by the date of application for refund, not the date of withdrawal.
- (f) No application for refund will be considered if received after the last day of February in the winter session or after July 31st in the summer session.

General Regulations

Classification of Students

Students, whether in the day or the evening division, are classified as *undergraduates* if they are properly matriculated for and proceeding to a degree or diploma; otherwise they are classified as *special students*. They are considered to be *full-time* students when enrolled for four or more subjects in an academic session, and *part-time* students when enrolled for fewer than four.

Attendance

A student is expected to attend all lectures, discussion groups, seminars and laboratory periods of any course in which he is registered, whether such periods of work are formally scheduled by the College Registrar or informally announced by the instructor.

Each instructor will determine for his own courses the relation of class attendance to course grades, and whether attendance records shall be kept. Early in the session he will inform his students of his practice in this regard.

The Senate may, at any time, either during the term or after the close of the term, request any student to withdraw from the College if his conduct, attendance, work or progress is deemed unsatisfactory.

Auditing

With the consent of the instructor concerned, an undergraduate in the day or evening division may audit courses concurrently with those being taken for credit, without the necessity of registering for or paying tuition for such audited courses.

Standing

A student's standing in his year's work will be determined not only by the results of mid-year and final examinations, but also by the work of the whole term or session, including consideration of class tests, laboratory work, essays, attendance, progress and any other matters bearing on the candidate's worth as a student of the College.

Except in the course leading to the Diploma in Engineering (see below), standing in each course is graded by the letters A, B, C, D (all unconditional passing grades) or F (failure). For the purpose of determining a student's average standing, a point value is assigned to each of these letter grades: A = 4, B = 3, C = 2, D = 1, F = 0.

To receive credit toward a degree a candidate must obtain at least a "D" grade in the work of each course. In order to receive second class standing in his year's work, a student must have obtained an average of

at least 2.4 grade points. In order to receive first class standing in his year's work, he must have obtained an average of at least 3.4 grade points. Additional regulations regarding required standing are stated in the outlines of the various degree programmes, pp. 39-63.

In the course leading to the Diploma in Engineering, the standing in each course is graded as I (first class standing, 80-100%), II (second class standing, 65-79%), III (third class standing, 50-64%) or "F" (failure, below 50%). To receive credit toward the Diploma a candidate must obtain at least third class standing in the work of each course.

A student whose term work is incomplete will be graded "F" in the course concerned unless special extension of the time allowed for completion of term work has been granted by the instructor.

If a student withdraws from any full-session course or subject after January 31 in the winter session, or July 31 in the summer session, or from a first-term half course after November 15, or a second-term half course after February 15, he will be considered to have failed the subjects from which he withdrew, unless by ruling of the Committee on Studies he is permitted to have his record show cancellation of subjects rather than failures in them.

A candidate must obtain complete standing in the first year before registering in the third year, and complete standing in the second year before registering in the fourth year of any course.

A full-time student may take a summer session course for credit towards a degree only if such credit is needed to make up a deficiency. He may take a summer course as an extra for no degree credit.

Failure and Repetition

A student taking five or more subjects who fails in more than two subjects will be considered to have failed his year. Similarly, a student taking fewer than five subjects who fails in more than one subject will be considered to have failed his year. In either case the student will not be permitted to write further examinations in the failed subjects without repeating them, and will retain credit only in those subjects in which he obtained "C" or higher standing (in Engineering, "II" or higher).

A student who has failed his year at Carleton College or elsewhere may apply to the Committee on Studies for permission to repeat the year's work. If permission is granted he will be placed on probation for that academic year and must pass *all* subjects taken (at regular or supplemental examinations) in order to be restored to good standing. A student placed on probation in the evening division must pass five courses in succession in order to regain good standing. If a student on probation

does not qualify for restoration to good standing at the conclusion of the probationary period he will lose his status as an undergraduate.

Examinations

Mid-year examinations are held in all first-year and second-year lecture courses, and final examinations in all courses, at the times listed under The Academic Year, p. 3. With few exceptions, a single, joint examination is set for day and evening classes in the same subject—usually during morning or afternoon hours.

A student who fails to write the scheduled mid-year or final examinations in any course must make satisfactory explanation to the Committee on Studies not later than one week after the day on which the examination was held if he is to receive consideration for credit in the course in which the examination was missed, or permission to write a special examination.

A student who, because of illness, has failed to write the scheduled mid-year or final examination in any course may, upon presentation to the Committee on Studies of a satisfactory certificate from his attending physician or surgeon, apply for *aegrotat* standing or for permission to write a special examination.

Course grades are released only by the Registrar. Year-end reports are mailed to students as soon as possible after the release of grades has been authorized. Upon the request of a student, a duplicate of his report will be sent to his employer or another designated person.

Supplemental examinations. All supplemental examinations in courses taught during the winter session are held in August. Summer course supplemental examinations are written in December. For exact dates, see The Academic year, p. 3. Fees are shown on p. 25.

A student who fails a course primarily because of unsatisfactory laboratory or term work may be graded "F(ns)", meaning that he may not write a supplemental examination in that course. The privilege of writing supplemental examinations will be thus denied only in special cases and the student shall have the right of appeal to the Committee on Studies.

No supplemental examinations are given in courses beyond the first three courses of a major or minor subject for a degree with specific honours, nor in courses beyond the first three courses in a continuation subject for a degree with general honours.

A student who does not write the final examination in any course is not eligible to write the supplemental examination in that course except by permission of the Committee on Studies.

If a supplemental examination is failed, the student will be required to repeat the course before coming up for examination in that course in any subsequent year.

A student who applies for and is granted permission to rewrite a subject for higher standing must do so within one calendar year after passing that subject. Students are advised that when they write supplemental examinations for the purpose of raising their standing the final grade assigned in any subject will be based on the whole year's work, including the supplemental, and that the grade obtained in the supplemental may be the grade retained even when it is lower than the grade derived from the previous regular examination.

Special examinations. A student who, for any reason, has not written a mid-year or final examination on the appointed date may be required, or may apply for permission, to take a special examination. Special examinations, and arrangements for taking them, may be authorized only by the Committee on Studies. For fee, see p. 25.

Library Regulations

All persons taking courses in the College are entitled to use the library. Most books may be borrowed for one week, and renewed if not requested by another reader. If these books are not returned or renewed when due, a fine of 10c per day is charged.

Reserve books may not be renewed. If they are not returned when due, a fine of 25c for the first hour or part of an hour, and 10c for each hour or part of an hour thereafter, is charged.

Reference books may not be taken from the library.

Details of Courses Offered

ARTS

Admission Requirements

(a) *To the First Year* of courses leading to the Bachelor of Arts degree:

Junior Matriculation—the Ontario Secondary School Graduation Diploma in the General Course (Grade XII), or an equivalent certificate*, with the required standing in the following subjects:

1. English.
2. Mathematics (Algebra and Geometry).
3. History.
4. A language other than English.
5. A Science (Physics and Chemistry; or Agricultural Science, Parts I and II) or an additional language.
6. Any *one* of: Music, Art, Home Economics, Commercial Work, Geography, Shop Work, Agriculture, an additional language.

*The following certificates, recognized as equivalent to the Ontario Secondary School Graduation Diploma, may be accepted for admission to first year if the subjects taken meet the requirements set out above:

Alberta.....	Junior Matriculation (Grade XI)
British Columbia.....	Junior Matriculation (Grade XII)
Manitoba.....	Grade XI
New Brunswick.....	Junior Matriculation
Newfoundland.....	Associate (Junior) or Grade XI (Academic)
Nova Scotia.....	Grade XI (average 60, minimum 50)
Prince Edward Island.....	First Class Licence; Second Year Certificate from Prince of Wales College; Grade XI
Quebec.....	The Quebec High School Leaving Certificate; McGill University Junior Matriculation
Saskatchewan.....	Grade XI

Mature Matriculation—A person over the age of twenty-one years who, though lacking the admission requirements specified above, can give evidence of the likelihood of success in university studies, may be admitted. In such cases he is permitted to take, as a *special student*,

the subjects of the first year. If he completes them successfully, he may be given credit for the year and admitted as an *undergraduate* to the second year.

(b) *To the Second Year* of courses leading to the Bachelor of Arts degree:

Senior Matriculation — A candidate for admission to second year must have passed the examination of first year, or of Ontario Grade XIII, or the equivalent examinations** of other recognized examining bodies in the following subjects:

1. English Composition and Literature.
2. Latin or Mathematics (two of Algebra, Geometry, Trigonometry).
3. A language other than English.
4. A Science (Physics or Chemistry or Biology).
(In special circumstances a language may be offered instead of the science requirement on condition that the science subject must be taken in a subsequent year.)
5. An additional subject. (Students who do not offer History must take a course in History in a succeeding year.)

No more than five senior matriculation subjects taken in a secondary school may be counted toward a Carleton degree.

**The following certificates, recognized as equivalent to the Ontario Grade XIII certificate in the subjects in which at least 50% has been made in each paper, may be accepted for admission to second year if the subjects taken meet the requirements set out above:

Alberta.....	Senior Matriculation (Grade XII)
British Columbia.....	Senior Matriculation (Grade XIII)
Manitoba.....	First Class; Grade XII
New Brunswick.....	Grammar School Licence; First Class Licence
Newfoundland.....	Associate (Senior)
Nova Scotia.....	Grade XII
Prince Edward Island.....	Honour Diploma of Third Year, Prince of Wales College
Quebec.....	Senior High School Leaving Certificate; McGill University Senior Matriculation
Saskatchewan.....	Grade XII

(c) *To the Third or subsequent years* of courses leading to the Bachelor of Arts degree:

Applications for admission to the third or subsequent years will be evaluated on their merits and advanced standing granted for studies undertaken elsewhere only when these are recognized as the equivalent of subjects offered in Carleton College. Every student admitted with advanced standing will be required to complete at least his last five courses in Carleton College.

Course Requirements

- *Bachelor of Arts—Pass Course* (Offered in both day and evening divisions).

Length of course. Candidates for the Pass B.A. degree will take a total of twenty courses after Junior Matriculation, or fifteen after Senior Matriculation.

In the day division five courses will be taken in each of four years. No more than five courses may be taken for credit in any academic year, unless by permission of the Committee on Studies.

In the evening division students may take one or two courses in each winter session and one course in each summer session. No more than two courses may be taken for credit in a winter session and no more than one in a summer session, unless by permission of the Committee on Studies.

Course selection. Courses will be selected from those listed under Details of Subjects, pp. 65 ff., as follows:

FIRST YEAR

1. English 1 and 10.
2. Latin 1 or Mathematics 1 (two of Algebra, Geometry, Trigonometry).
3. A language other than English (a course numbered 1 or higher).
4. A science (Physics 1 or Chemistry 1 or Biology 1).
(In special circumstances a language may be substituted for the science requirement on condition that the science subject must be taken in a subsequent year).
5. An additional subject.
(Students who do not take History in the first year must take a course in History in a succeeding year. Students intending to proceed to an honours course in a language and literature are advised to offer two languages other than English).

SECOND YEAR

1. English 2 or 4. (English 10 also may be required.)
2. A further course in the language studied in first year.
(The study of a language other than English may be begun in the second year. For details, consult the Registrar.)
3. Philosophy 2, or a second-year course in Mathematics or in a science: Astronomy, Biology, Botany, Zoology, Chemistry, Geography, Geology, or Physics.
4. One of: Philosophy, Psychology, History, Economics, Political Science, Sociology, Geography.
5. An additional subject.

Third and fourth year courses may be selected from those for which the candidate has the prerequisites, five courses in each year, subject to the following requirement:

In order to qualify for graduation a candidate must have completed at least three courses in each of three subjects, exclusive of first-year courses. The choice of these three subjects, shall be made at the beginning of the third year. The following may *not* be chosen as continuation subjects: Accounting, Commerce, Engineering, Journalism; nor more than two of Economics, Political Science, Public Law.

Standing. General regulations regarding standing are stated on p. 35. In addition, candidates for the Pass B.A. degree must obtain an average of at least 1.5 grade points in the courses taken in Carleton College. If after the regular examinations in any year a student's cumulative grade-point average is below 1.5 he is advised to raise his grades in some subjects by writing supplemental examinations.

- *Bachelor of Arts with General Honours* (First two years offered in both day and evening divisions; last three years offered in day division only)

This course is equal to the Specific Honours B.A. in the quantity and quality of its work but offers the student of ability an opportunity to undertake studies in a wider range of subjects.

Additional admission requirements. Students who have attained at least second class standing in the second year of the Pass Course may be enrolled in the third year of the General Honours Course if their subjects taken in the first and second years meet the requirements of the General Honours Course. Students who have attained at least second class standing in the second and third years of the Pass Course may be enrolled in the fourth year of the General Honours Course if their subjects taken in the first, second and third years meet the requirements of the General

Honours Course. No student may move from the Pass Course into the General Honours Course carrying a "condition" in any subject of his previous years.

Length of course. Candidates for the General Honours degree will take a minimum of twenty-five courses in five years if admitted by Junior Matriculation, or a minimum of twenty courses in four years if admitted by Senior Matriculation.

Course selection. In order to qualify for graduation, a candidate for the General Honours degree must have completed at least four courses in each of three separate fields of study, exclusive of first-year courses. The choice of these three fields of study shall be made at the beginning of the third year and shall be subject to the approval of the Committee on Honours.

The whole course of a candidate for General Honours must at every stage be approved by the Committee on Honours.

Standing. General regulations regarding standing are stated on p. 35. Additional regulations regarding the standing of candidates for the General Honours degree are as follows.

A student's honours standing in any year's work will be determined by the Committee on Honours.

To receive credit towards the General Honours degree a candidate must obtain at least second class standing in the year's work.

Students who fail to maintain honours standing in any year must withdraw from the General Honours Course. Such students may apply for admission to the Pass Course and if accepted must fulfill the requirements of the Pass Course before presenting themselves for the Pass B.A. degree.

At graduation a student's honours standing is determined, on the basis of his entire record, as First Class, High Second Class, or Second Class.

- *Bachelor of Arts with Specific Honours* (First two years offered in both day and evening divisions; last three years offered in day division only)

This course is characterized by strict prescription of studies and high standards of performance, more especially within those departments in which major and minor subjects have been selected.

Additional admission requirements. Admission to Specific Honours will be granted only with the consent of the department in which the major subject is to be taken. Students who have attained at least second class standing in the work of the second year of the Pass Course may be

admitted to the third year of a Specific Honours Course. Students who have obtained at least second class standing in the work of the second year of the Pass Course, and in the work of the third year of the General Honours Course, may be admitted to the fourth year of a Specific Honours Course.

Length of course. Candidates for the degree of B.A. with Specific Honours will ordinarily take twenty-five courses in five years if admitted by Junior Matriculation, or twenty courses in four years if admitted by Senior Matriculation. Attendance at seminars and the completion of special assignments may also be required.

Course selection. A candidate for Specific Honours must, before registering in his third year, choose a major subject and a minor subject, and in these major and minor subjects must take such courses as may be determined by the head of the department in which he is to pursue the work of his major.

The whole course of a candidate for a Specific Honours degree must be in the beginning discussed with, and thereafter at every stage be approved by, the head of the department in which the candidate chooses his major subject or field of study.

Specific Honours majors are now available in Public Administration (see p. 45), Political Science, History, Economics, and English. Other majors will be made available in subsequent years.

Standing. General regulations regarding standing are stated on p. 35. Additional regulations regarding the standing of candidates for a Specific Honours degree are as follows.

A student's honours standing in any year's work will be determined by the Committee on Honours.

To receive credit towards a Specific Honours degree a candidate must obtain at least second class standing on the year's work.

Students who fail to maintain honours standing in any year must withdraw from the Specific Honours Course. Such students may apply for admission to the Pass Course.

At graduation a student's honours standing is determined, on the basis of his entire record, as First Class, High Second Class, or Second Class.

PUBLIC ADMINISTRATION

ADVISORY COUNCIL ON PUBLIC ADMINISTRATION STUDIES

O. E. Ault, Director of Personnel Selection, Civil Service Commission of Canada

C. H. Bland, Chairman, Civil Service Commission of Canada

R. B. Bryce, Assistant Deputy Minister of Finance, and Secretary to the Treasury Board

G. F. Davidson, Deputy Minister of National Welfare, and President of the Institute of Public Administration of Canada

R. A. MacKay, Head of Defence Liaison Division, Department of External Affairs

C. D. Wight, Director of Planning and Development, City of Ottawa

M. M. MacOdrum, President, Carleton College

Donald C. Rowat, Assistant Professor of Political Science, Carleton College

James A. Gibson, Dean, Carleton College

E. F. Sheffield, Registrar, Carleton College

Since the rapid growth in government services during the last half century has increased the responsibilities of public employees and complicated their problems, the realization has been mounting that public administrators, either federal, provincial or municipal, can profit from a special type of education. Carleton College has been attempting to meet this need by offering programmes of study as preparation for public administration.

At present there are two such programmes, one leading to a Bachelor of Arts degree with Honours in Public Administration, and the other to a Diploma in Public Service Studies.

The degree programme is built on the assumption that the most suitable education for a person desiring to be a capable public administrator is broad and general in base, with specialization at a later stage. While it is designed to be of particular use to students contemplating careers in public employment, it also provides a sound general education for those considering the legal profession or business. The diploma programme, on the other hand, will be most helpful to those who already have a broad background and who wish training in the fields directly related to public administration. Details of the two programmes are given below.

The courses offered in Public Administration (see pages 114-117) may be studied by themselves if a student wishes to enrol for only these courses and secures the permission of the Department to do so.

Since Carleton College is located in the capital city and enjoys close relations with many government agencies, students of public administration may profit greatly from the unique advantages thus offered.

- *Bachelor of Arts with Honours in Public Administration* (First two years offered in both day and evening divisions; last three years offered in day division only)

Course Requirements

Candidates for the degree of Bachelor of Arts with Honours in Public Administration must satisfy all requirements for the degree of B.A. with Specific Honours, as outlined above, p. 43.

Course selection. The work of this course involves prescribed studies in Political Science, Economics and Public Law, as follows:

FIRST AND SECOND YEARS

Students intending to enter Honours Public Administration in the third year will take the courses prescribed for the Pass B.A. in the first and second years (see p. 41). They are advised, however, to include Political Science 2 and Economics 2 in the second year, and by the end of that year they should have a reading knowledge of French.

THIRD YEAR

1. Political Science 3 (Comparative Government)
2. Economics 3 (Canadian Economic Development)
3. History 13 (Canada from 1791: The Evolution of Canadian Self-Government)
4. Public Law 1 (Elements of Public Law)
5. One of: English, Philosophy, Psychology, Sociology, Accounting, Mathematics, Geography

FOURTH YEAR

1. Political Science 4 (Political Theory)
2. Political Science 6 (Introduction to Public Administration)
3. Economics 8, 11 or 12
4. Public Law 2 (The Constitutional Law of Canada), or Public Law 3 (Administrative Law)
5. One of: English, Philosophy, Psychology, Accounting, Mathematics, History, Sociology, Geography

FIFTH YEAR

1. Political Science 10 (The State and the Individual)
2. Political Science 17 or 18 (Seminar in Public Administration)

3. Public Law 3 (Administrative Law) or Public Law 2 (The Constitutional Law of Canada), whichever was not taken in the fourth year.
- 4.) Two of: Commerce 4 (Labour Economics and Industrial Relations)
- 5.) Economics 7 (International Trade)
Economics 8 (Money and Banking)
Economics 11 (Public Finance)
Economics 12 (Economic Policy)
Economics 16 (Statistical Methods in the Social Sciences)
Psychology 4 (Personnel Psychology)
Political Science 14 (Seminar in Political Research)
(If this course is chosen the student must submit a thesis on a special topic chosen in consultation with his adviser.)
6. One of: English, Philosophy, Psychology, Accounting, Mathematics, History, Sociology, Geography

- *Bachelor of Public Administration*
- *Bachelor of Arts with Certificate in Public Administration*
- *Certificate in Public Administration*

These courses are no longer offered to beginning students. Students already matriculated for one of them may continue according to their original plans, or may, if qualified, transfer to one of the revised programmes of public administration studies, i.e. to the course leading to the B.A. with Honours in Public Administration (see p. 46), or to the course leading to the Diploma in Public Service Studies, described below.

- *Diploma in Public Service Studies* (Offered in evening division only)

This diploma course is designed for those who seek special training in public service subjects at the undergraduate but not at the honour level.

Admission requirements. Junior matriculation (see p. 39), but the cases of applicants without junior matriculation will be considered on their merits by the Committee on Public Administration which may require the completion of certain subjects at Carleton before admission. Candidates may be admitted with advanced standing but must complete at least the last five courses for the diploma in Carleton College.

Course requirements. The following courses are required and the following order is suggested:

- Political Science 2—Introduction to Political Science
- Economics 2 —Principles of Economics
- Economics 3 —Canadian Economic Development
- History 13 —Canada from 1791
- Public Law 1 —Elements of Public Law
- Political Science 3—Comparative Government
- Political Science 4—History of Political Theory
- Economics 12 —Economic Policy
- Political Science 6—Introduction to Public Administration
- Public Law 3 —Administrative Law

Standing. Candidates for the diploma must obtain an average of at least 1.5 grade points in the courses taken at Carleton.

JOURNALISM

ADVISORY COUNCIL ON JOURNALISM

R. Warren Baldwin, Ottawa Chief of Bureau, The *Toronto Globe and Mail*.

D'Arcy Finn, Executive Editor, The *Ottawa Citizen*.

Blair Fraser, Ottawa Editor, *Maclean's Magazine*.

Douglas Leechman, author and journalist.

Norman M. MacLeod, Ottawa Chief of Bureau, The *British United Press*.

F. C. Mears, Ottawa Chief of Bureau, The *Montreal Gazette*.

Robert McKeown, of the Ottawa Bureau, The *Montreal Standard*.

I. Norman Smith, Associate Editor, The *Ottawa Journal*.

M. M. MacOdrum, President, Carleton College.

Wilfrid Eggleston, Director of Journalism, Carleton College.

James A. Gibson, Dean, Carleton College.

E. F. Sheffield, Registrar, Carleton College.

- *Bachelor of Journalism* (First two years offered in both day and evening divisions; last two years offered in day division only)

The course in Journalism is built around the conviction that the best college training for the career of journalist today consists of a good liberal arts education, combined with thorough training in the technical skills of interviewing, reporting, writing and editing. In the United States, with its much longer tradition in education for journalism, the tendency in four-year schools of journalism is to arrange courses so that students spend seventy-five to eighty per cent of their time in acquiring a good background, and only twenty to twenty-five per cent in technical courses. The result, says Frank Luther Mott, director of the University of Missouri School of Journalism, is to give such students "a mind trained and ripened by the liberal discipline—the social sciences, philosophy, mathematics, languages and so on."

While the education of a journalist must stress the art and science of communication (through the spoken as well as the written word), the importance of a writer having something to communicate cannot be neglected. The good newspaperman is noted for his ability to get information and to see the value of the facts he gets.

The course in Journalism at Carleton College emphasizes liberal scholarship and basic skills, in the belief that there are few practical applications of a specialized nature which cannot be subsequently acquired in a few weeks of actual work. While an array of "shop" courses in practical vocational training might appear to give more immediately useful crafts to the prospective journalist, it is assumed that no amount

of "shop" training will carry a "cub" far if he lacks a broad background of liberal education and the intelligence to grasp and report the complex phenomena of modern society.

The opportunities in the national capital for the training of newspapermen and women are exceptional. The members of the parliamentary press gallery and staffs of the Ottawa newspapers, the press attaches of diplomatic missions, the public relations officers of government departments, and headquarters personnel of national associations are among the resources from which Carleton College can draw for guest lecturers and teaching material. Ottawa is the repository and headquarters of information upon almost every conceivable national topic. It is rich in cultural life. It is not going too far to say that residence for two or three years in the national capital can of itself be an education to anyone who purposes to make writing his or her career.

Admission Requirements

(a) *To the First Year* of the course leading to the Bachelor of Journalism degree:

Requirements are the same as those for admission to the first year of courses leading to the Bachelor of Arts degree (see p. 39).

(b) *To the Second Year* of the course leading to the Bachelor of Journalism degree:

Senior Matriculation — A candidate for admission to second year must have passed the examinations of first year, or of Ontario Grade XIII or the equivalent examinations (see p. 40) of other recognized examining bodies in the following subjects:

1. English Composition and Literature
2. Latin or Mathematics (two of Algebra, Geometry, Trigonometry)
3. A modern language other than English
4. A science (Physics or Chemistry or Biology)
(In special circumstances a language may be offered instead of the science requirement on condition that the science subject must be taken in a subsequent year.)
5. History

No more than five senior matriculation subjects taken in a secondary school may be counted toward a Carleton degree.

(c) *To the Third and Fourth Years* of the course leading to the Bachelor of Journalism degree:

Undergraduates or graduates applying for admission to advanced standing with allowances on credits gained at their original college or university may be admitted to the third or to the fourth year, if their

academic record is accepted as at least equivalent to the completion of second or third year Journalism in Carleton College. Normally, such applicants should offer standing in at least two of the following subjects in their previous work: Canadian History, Psychology, Economics, Political Science. Credit for courses previously taken will be arranged on application, subject to the stipulation that a minimum of a full year's work of at least the last five courses must be taken at Carleton College in order to qualify for the Bachelor of Journalism degree.

NOTE: Journalism students are urged to become reasonably proficient on the typewriter as soon as possible. All assignments in the courses Journalism 1, 2, 3, 4 and 5 (which are taken in the third and fourth years) will be done by typewriter.

Course Requirements

Length of course. Candidates for the Bachelor of Journalism degree must take a total of twenty courses in four years if admitted by Junior Matriculation, or fifteen courses in three years if admitted by Senior Matriculation.

Not more than five courses may be taken for credit in any academic year, unless by permission of the Committee on Studies.

Course Selection. The course leading to the degree of Bachelor of Journalism will consist of subjects selected from those listed under Details of Subjects, pp. 65 ff., as follows:

FIRST YEAR

1. English 1 and 10
2. Latin 1 or Mathematics 1 (two of Algebra, Geometry, Trigonometry)
3. French 1 (or a course numbered 1 or higher in another language)
4. A science (Physics 1 or Chemistry 1 or Biology 1)
5. History 1

SECOND YEAR

1. English 2 (English 10 also may be required)
2. French 2 (or a further year of work in another language)
3. One of: Economics 2, Political Science 2, Philosophy 2
4. History 3
5. Psychology 2

In addition to the five courses listed above, second-year Journalism students will attend a series of preparatory lectures in Journalism. (See p. 102).

THIRD YEAR

1. Journalism 1
2. Journalism 2
3. History 13 (or History 3, if not taken in second year)
(Normally both History 3 and History 13 will be required for a degree in Journalism. History 13 has for a prerequisite History 3 or its equivalent. In special circumstances, History 13 may be taken without the prerequisite, but the Department of History must be satisfied that the applicant has adequate background.)
4. One of: Economics 2 (if not taken in second year)
Political Science 2 (if not taken in second year)
An approved English course
5. One of: Economics 3, 5 or 6 (if Economics 2 has been taken previously)
Political Science 3 or 4 (if Political Science 2 has been taken previously)
Social Policy 1, Commerce 4 or Sociology 1
An approved option

FOURTH YEAR

1. Journalism 3
2. Journalism 4
3. Journalism 5
4. History 13 (or, if taken previously, an approved course in English)
5. One of: Economics 3, 5 or 6 (if Economics 2 has been taken previously)
Political Science 3 or 4 (if Political Science 2 has been taken previously)
Social Policy 1, Commerce 4 or Sociology 1
An approved option

Standing. General regulations regarding standing are stated on p. 35. In addition, candidates for the B.J. degree must obtain an average of at least 1.5 grade points in the courses taken in Carleton College and grades of "C" or better in *each* of Journalism 3, 4 and 5. If after the regular examinations in any year a student's cumulative grade-point average is below 1.5 he is advised to raise his grades in some subjects by writing supplemental examinations.

COMMERCE

● *Bachelor of Commerce* (Offered in both day and evening divisions)

The course leading to the degree of Bachelor of Commerce is designed primarily to provide an education with some specialization in subjects which should be of greatest interest and value to those looking forward to a business career. Because the aims of students differ widely, and because specific training can be gained more effectively in business itself than in academic courses, the Commerce course contains no specialized training in the techniques of business management and administration.

The course is based upon the conviction that a person who has learned to think and to express himself clearly and coherently has received the best preparation for responsible citizenship and business leadership in the modern world. The objective of the Commerce course is, therefore, to provide the maximum opportunity for rigorous, critical and imaginative thinking by the student under the guidance and direction of the members of the Faculty.

Admission Requirements

(a) *To the First Year* of the course leading to the Bachelor of Commerce degree:

Requirements are the same as those for admission to the first year of courses leading to the Bachelor of Arts degree (see p. 39).

(b) *To the Second Year* of the course leading to the Bachelor of Commerce degree:

Senior Matriculation — A candidate for admission to second year must have passed the examinations of first year, or of Ontario Grade XIII, or the equivalent examinations (see p. 40) of other recognized examining bodies in the following subjects:

1. English Composition and Literature
2. Mathematics (Algebra, Geometry and Trigonometry)
3. A modern language other than English
4. A science (Physics or Chemistry or Biology)
5. An additional subject, preferably History. (Students who do not offer History must take History 1 in a subsequent year)

No more than five senior matriculation subjects taken in a secondary school may be counted toward a Carleton degree.

(c) *To the Third and Fourth Years* of the course leading to the Bachelor of Commerce degree:

Applications for admission to the third or fourth years will be evaluated on their merits and advanced standing granted for studies undertaken elsewhere only when these are recognized as the equivalent of subjects offered in Carleton College. Every student admitted with advanced standing will be required to complete at least his last five courses in Carleton College. (See also regulations regarding standing, p. 55.)

Course Requirements

Length of course. Candidates for the Bachelor of Commerce degree must take a total of at least twenty courses after Junior Matriculation or fifteen after Senior Matriculation.

In the day division at least five courses will be taken in each of four years. No more than five courses (except in second year when $5\frac{1}{2}$ are required) may be taken for credit in any academic year, unless by permission of the Committee on Studies.

In the evening division students may take one or two courses in each winter session and one course in each summer session. No more than two courses may be taken for credit in a winter session and no more than one in a summer session, unless by permission of the Committee on Studies.

Course selection. Courses will be selected from those listed under Details of Subjects, pp. 65 ff., as follows:

FIRST YEAR

1. English 1 and 10
2. Mathematics 1 (Algebra, Geometry and Trigonometry)
3. French 1 or a course numbered 1 or higher in another modern language
4. A science (Physics 1 or Chemistry 1 or Biology 1)
5. History 1

SECOND YEAR

1. English 2 (English 10 also may be required.)
2. French 2 or a further year of study in the modern language taken in first year
3. Economics 2
4. Economics 3

5. Accounting 2
(Students entering second year with at least second class standing in Grade XIII Accountancy Practice may substitute an approved option for Accounting 2.)
6. Mathematics 3a (half course)

THIRD YEAR

1. Commerce 1
2. Economics 8
3. Economics 16
4. Accounting 3
5. A course in English, History, Philosophy, Political Science or Sociology

FOURTH YEAR

Five full courses chosen as follows:

1. One of: Economics 9, 10, 14, 15
2. One or two of: History, Political Science, Philosophy, Sociology
3. Two or three of: Accounting, Commerce, Economics, Geography, Mathematics, Psychology

Standing. General regulations regarding standing are stated on p. 35. In addition, a candidate for a degree in Commerce who fails to secure an average at least 1.6 grade points in the first or second year or 1.8 in the third or fourth year will be required to withdraw from the Commerce course. Such students may apply for admission to the Pass B.A. course and if accepted must fulfil the requirements of that course in order to qualify for the Pass B.A. degree.

SCIENCE

Admission Requirements

(a) *To the First Year* of courses leading to the Bachelor of Science degree:

Requirements are the same as those for admission to the first year of courses leading to the Bachelor of Arts degree (see p. 39).

(b) *To the Second Year* of courses leading to the Bachelor of Science degree:

Senior Matriculation — A candidate for admission to second year must have passed the examinations of first year, or of Ontario Grade XIII, or the equivalent examinations (see p. 40) of other recognized examining bodies in the following subjects:

1. English Composition and Literature
2. Mathematics (Algebra, Geometry and Trigonometry)
3. A language other than English
4. }
5. }

Two of: Physics, Chemistry, Biology

No more than five senior matriculation subjects taken in a secondary school may be counted toward a Carleton degree.

(c) *To the Third or subsequent years* of courses leading to the Bachelor of Science degree:

Applications for admission to the third or subsequent years will be evaluated on their merits and advanced standing granted for studies undertaken elsewhere only when these are recognized as the equivalent of subjects offered in Carleton College. Every student admitted with advanced standing will be required to complete at least his last five courses in Carleton College.

Course Requirements

- *Bachelor of Science — Pass Course* (Offered in both day and evening divisions)

Length of course. Candidates for the Pass B.Sc. degree will take a total of twenty courses after Junior Matriculation, or fifteen after Senior Matriculation.

In the day division five courses will be taken in each of four years. No more than five courses may be taken for credit in any academic year unless by permission of the Committee on Studies.

In the evening division students may take one or two courses in each winter session and one course in each summer session. No more than two courses may be taken for credit in a winter session and no more than one in a summer session, unless by permission of the Committee on Studies.

Course selection. Courses will be selected from those listed under Detail of Subjects, pp. 65 ff., as follows:

FIRST YEAR

1. English 1 and 10
2. Mathematics 1 (Algebra, Geometry and Trigonometry)
3. A language other than English (a course numbered 1 or higher)
4. } Two of: Physics 1, Chemistry 1, Biology 1
5. }

SECOND YEAR

1. English 2 (English 10 may also be required.)
2. A further course in the language studied in first year
3. Mathematics 2
4. } Two of: Biology, Chemistry, Geology, Mathematics,
5. } Physics

THIRD AND FOURTH YEARS

Third and fourth year courses may be selected from those for which the candidate has the prerequisites, five courses in each year, subject to the following requirement:

In order to qualify for graduation a candidate must have completed at least eight courses in two science subjects (four in each, or five in one and three in the other) and three courses in a third continuation subject (science or non-science), all exclusive of first-year courses. The choice of these three subjects shall be made at the beginning of the third year. The two science subjects shall be chosen from among Biology, Chemistry, Geology, Mathematics and Physics.

Standing. General regulations regarding standing are stated on p. 35. In addition, candidates for the Pass B.Sc. degree must obtain an average of at least 1.5 points in the courses taken in Carleton College. If after the regular examinations in any year a student's cumulative grade-point average is below 1.5 he is advised to raise his grades in some subjects by writing supplemental examinations.

- *Bachelor of Science with Specific Honours* (First two years offered in both day and evening divisions; last three years in day division only)

The Specific Honours Course is characterized by strict prescription of studies and high standards of performance, more especially in those departments in which major and minor subjects have been selected.

Additional admission requirements. Admission to Specific Honours will be granted only with the consent of the department in which the major subject is to be taken. Students who have attained at least second class standing in the second year of the Pass Course may be admitted to the third year of a Specific Honours Course. No student carrying a "condition" in the Pass Course will be admitted to a Specific Honours Course.

Length of Course. Candidates for the degree of B.Sc. with Specific Honours will ordinarily take twenty-five courses in five years if admitted by Junior Matriculation, or twenty courses in four years if admitted by Senior Matriculation. Attendance at seminars and the completion of special assignments may also be required.

Course selection. A candidate for Specific Honours must, before registering in his third year, choose a major subject and a minor subject, and in these major and minor subjects must take such courses as may be determined by the head of the department in which he is to pursue the work of his major.

The whole course of a candidate for a Specific Honours degree must be in the beginning discussed with, and thereafter at every stage be approved by the head of the department in which the candidate chooses his major subject or field of study.

Specific Honours majors are now available in Biology, Chemistry, Mathematics, Physics, and Applied Physics (see below). Other majors will be made available in subsequent years.

Standing. General regulations regarding standing are stated on p. 35. Additional regulations regarding the standing of candidates for a Specific Honours degree are as follows.

A student's honours standing in any year's work will be determined by the Committee on Honours.

To receive credit towards a Specific Honours degree a candidate must obtain at least second class standing on the year's work.

Students who fail to maintain honours standing in any year must withdraw from the Specific Honours Course. Such students may apply for admission to the Pass Course.

At graduation a student's honours standing is determined, on the basis of his entire record, as First Class, High Second Class, or Second Class.

● *Bachelor of Science with Honours in Applied Physics* (Offered in day division only)

The course leading to the degree of Bachelor of Science with Honours in Applied Physics is designed to serve students whose interest is in engineering research.

Special admission requirements. Admission to this course is open to students who have qualified in the two-year diploma course in Engineering (see p. 60) or the equivalent, with at least second class standing.

Length of course. Candidates for this degree will take a minimum of ten courses in two years following completion of the two-year course in Engineering (making a total of five years from Junior Matriculation or four years from Senior Matriculation).

Course selection. Courses will be selected in consultation with the head of the Physics department.

Standing. The regulations regarding standing in courses leading to the degree of Bachelor of Science with Specific Honours apply. (See p. 58).

ENGINEERING

● *Diploma in Engineering* (Offered in day division only)

Studies offered in Applied Science and Engineering cover the first two years of a four-year Engineering course and require Senior Matriculation or the equivalent for admission. The first year course is common to all branches of engineering. The second year is divided into two groups: Course A is for students intending to specialize in Civil, Mechanical or Electrical Engineering; Course B is for students intending to specialize in Chemistry, Chemical Engineering, Mining, Metallurgy or Geology.

Students completing the Engineering course at Carleton College may, if recommended, be admitted to the third year of Engineering courses at another university, e.g., McGill University, Queen's University or (in certain courses) The University of Toronto, where they may qualify in two additional years for a degree in Engineering.

Alternatively, students completing the Engineering course at Carleton College may transfer to the course leading to the degree of Bachelor of Science with Honours in Applied Physics, which involves two additional years of study in Carleton College. (See p. 59).

Admission Requirements

(a) *To the First Year* of the course leading to the Diploma in Engineering:

Junior Matriculation—Effective in 1953, junior matriculation requirements will be the same as those for admission to the first year of courses leading to the Bachelor of Arts degree (see p. 39).

Senior Matriculation—In addition, a candidate for admission to the first year of the course leading to the Diploma in Engineering must have passed the examinations of the first year of the Bachelor of Science course in Carleton College (see p. 57), or of Ontario Grade XIII, or the equivalent examinations (see p. 40) of other recognized examining bodies in the following subjects:

1. English Composition and Literature
2. Mathematics (Algebra, Geometry, including Analytic Geometry, and Trigonometry). (Preference will be given to students having second class standing or better.)
3. One of: Latin, Greek, French, German, Spanish, Italian, History, Biology (Botany and Zoology)
(Students intending to proceed to The University of Toronto in the Faculty of Applied Science and Engineering should choose a language.)
4. Physics
5. Chemistry

(b) *To the Second Year* of the course leading to the Diploma in Engineering:

Students who have successfully completed the work of first year Engineering in Carleton College, or equivalent work elsewhere, may apply for admission to the second year.

Course Requirements

Length of Course. Candidates for the Diploma in Engineering will take a course covering two years of study after Senior Matriculation or after the first year of the B.Sc. course.

Course selection. Courses will be selected from those listed under Details of Subjects, pp. 65 ff., as follows:

FIRST YEAR

Common to all branches of Engineering

SUBJECT	Lecture Hours Per Week		Laboratory Hours Per Week	
	First Term	Second Term	First Term	Second Term
English 12 (English for Engineering Students).....	2	2	0	0
Mathematics 4a and 4b (Algebra, Geometry and Spherical Trigonometry).....	3	3	0	0
Mathematics 5 (Calculus).....	3	3	0	0
Physics 2a and 2b (Properties of Matter, Wave Motion).....	3	3	2	2
Chemistry 3 (Elementary Physical Chemistry).....	2	2	1	1
Engineering 1 (Mechanics).....	2	2	2	2
Engineering 7 (Engineering Problems I) ..	0	0	3	3
Engineering 12 (Mechanical Drawing I).....	0	0	6	6
Engineering 10 (Surveying).....	1	1	*	0
Engineering 14 (Engineering and Society) ..	0	1	0	0
Engineering 9 (Surveying Field Work) (Four weeks in May or September)				
	16	17	14	14

*Three days' field work at the commencement of the term.

SECOND YEAR—COURSE A
Civil, Mechanical and Electrical Engineering

SUBJECT	Lecture Hours Per Week		Laboratory Hours Per Week	
	First Term	Second Term	First Term	Second Term
Mathematics 6 (Calculus).....	3	3	0	0
Engineering 4 (Materials of Engineering)..	1	2	0	0
Engineering 3 (Descriptive Geometry).....	0	0	2	2
Engineering 13 (Mechanical Drawing II)....	0	0	3	3
Engineering 2 (Applied Mechanics).....	2	2	2	2
Engineering 5 (Mechanics of Machines)....	2	0	2	0
Physics 3a and 3b (Elementary and Inter- mediate Electricity).....	2	2	3	3
Geology 2 (General Geology).....	2	2	2	2
Engineering 11 (Surveying and Mapping II).....	1	1	3	3
Engineering 8 (Engineering Problems II)....	0	0	1	2
Chemistry 5 (Chemistry of Engineering Materials).....	2	2	0	0
Engineering 6 (Heat Engines, Elementary)	0	1	0	0
Engineering 15 (Public Speaking for Engineers).....	0	0	0	1
Economics 4 (Economics for Engineers).....	1	1	0	0
	16	16	18	18

SECOND YEAR—COURSE B
 (See next page)

Standing. The standing in each course is graded as I (first class standing, 80-100%), II (second class standing, 65-79%), III (third class standing, 50-64%) or "F" (failure, below 50%). To receive credit toward the Diploma in Engineering a candidate must obtain at least third class standing in the work of each course.

Special Requirements

All Engineering students should consult the calendar of the particular university in which they desire to continue their studies in the third and fourth years.

Summer school. Students proceeding to third year Engineering at another university will be required to attend the appropriate summer school prior to entry to the third year.

Practical experience. It is necessary that Engineering students shall have practical experience in engineering work (experience which may be obtained in summer jobs) and they must submit a record of this signed by their employers. Suitable forms are available from the Registrar's Office.

Summer essays. Summer essays on topics drawn from the practical experience of the student during his summer work must be submitted at the beginning of the fall term.

SECOND YEAR—COURSE B

Chemical, Mining, Metallurgy, Geology

SUBJECT	Lecture Hours Per Week		Laboratory Hours Per Week	
	First Term	Second Term	First Term	Second Term
Mathematics 6 (Calculus).....	3	3	0	0
Engineering 4 (Materials of Engineering)....	1	2	0	0
Engineering 3 (Descriptive Geometry).....	0	0	2	2
Engineering 13 (Mechanical Drawing II)....	0	0	3	3
Engineering 2 (Applied Mechanics).....	2	2	0	2
Physics 3a (Elementary Electricity).....	2	0	3	0
Geology 2 (General Geology).....	2	2	2	2
Geology 4 (Mineralogy).....	2	2	2	2
Engineering 11 (Surveying and Mapping II).....	1	1	3	3
Chemistry 6 (Qualitative Analysis).....	3	3	3	3
Chemistry 7 (Quantitative Analysis).....	2	2	*	*
Economics 4 (Economics for Engineers).....	1	1	0	0
	19	18	18	17

* The regular laboratory work in Chemistry 7 will be done by engineering students in the four-week period following the spring examinations.

Details of Subjects

ACCOUNTING

Associate Professor . . . W. J. McDougall, B.A., C.A.
Sessional Lecturers . . . Harry Wood, C.A.
A. A. Sterns, Lic.com., Dr. rer. pol.

Students who, after achieving the B.Com. degree, intend to proceed to professional accounting degrees—Chartered Accountant (C.A.), Certified Public Accountant (C.P.A.), Certified General Accountant (C.G.A.), or Registered Industrial and Cost Accountant (R.I.A.)—should consult the head of the Accounting Department before entering the final year of the Commerce course.

ACCOUNTING 2. *Elementary Accounting*

The theory and practice of accounts including the principles of debit and credit; books of original entry and special forms thereof; general ledger; subsidiary ledgers and controlling accounts; adjusting and closing entries; preparation of work sheet and financial statements; introduction to partnership and corporation accounting.

Day Division: Annually (lectures three hours a week).

Evening Division: Annually (lectures two hours a week).

ACCOUNTING 3. *Intermediate Accounting* (Formerly Accounting 100)

The theory and practice of accounts with specific attention to the corporate form of business organization; problems of valuation and classification, principles of account analysis; assets, liabilities, capital stock, surplus and reserves; preparation of statements; comparative statements and ratio analysis.

PREREQUISITE: Accounting 2.

Day Division: Annually (lectures three hours a week).

Evening Division: Annually (lectures two hours a week).

ACCOUNTING 4. *Advanced Accounting* (Formerly Accounting 101)

A course designed to provide for advanced work in the theory and practice of accounts, including consignments, instalment sales, branch accounting; mergers, holding companies; consolidated balance sheets; estates and trusts, bankruptcy and winding up; partnership and corporation accounting.

PREREQUISITE: Accounting 3.

Day Division: Annually (lectures three hours a week).

Evening Division: Not offered 1951-52.

ACCOUNTING 5. *Government Accounting and Finance* (Formerly Accounting 102)

A study of the financial administration and organization of the Dominion Government, including the preparation, legalization and execution of the budget; the authorization and collection of revenues; government borrowing and public debt; parliamentary appropriations; the disbursement of public monies; the audit of the public accounts; the financial functions of Parliament; the Committees of Supply and Ways and Means; the Governor in Council; the Treasury Board; the Receiver General and Minister of Finance; the Department of Finance and the Comptroller of the Treasury; the Bank of Canada; the Auditor General; and the Public Accounts Committee. The course will include some reference to the financial administrative practices of other countries.

PREREQUISITE: Accounting 2.

Not offered 1951-52 (but see Extension Department).

ACCOUNTING 6. *Cost Accounting and Auditing*

First term: Cost Accounting. The field of cost accounting and its definition; differentiation from general accounting; elements of costs; direct materials, direct labour and overhead; the distribution and application of the elements of cost; types of cost systems.

Second term: Auditing. An introduction to auditing; purposes, principles and methods of types of audit; outline of audit programme; analysis of accounts; auditing objectives and responsibilities; relation of general auditing to internal check and internal auditing; audit reports.

PREREQUISITES: Accounting 2 and 3.

Evening Division: Annually (lectures two hours a week).

ACCOUNTING 7. *Cost Accounting*

First term: The field of cost accounting and its definition; differentiation from general accounting; elements of costs; direct materials, direct labour and overhead; the distribution and application of the elements of cost; types of cost systems.

Second term: Elaboration of components of cost; job cost system; process cost system; estimate cost procedure; budgetted cost, standard cost; distribution at normal and abnormal production level; various forms of cost ledgers.

PREREQUISITES: Accounting 2 and 3.

Evening Division: Annually (lectures two hours a week).

ANTHROPOLOGY

(See Sociology)

ASTRONOMY

Sessional Lecturer . . . P. M. Millman, A.M., Ph.D.

ASTRONOMY 1. *Descriptive Astronomy*

A general survey course dealing with the modern concepts of distance, the sizes and the physical nature of the heavenly bodies, including the sun, planets, satellites, comets, meteors, stars, and the diffuse matter of space. Opportunity will be given for astronomical observation at the Dominion Observatory.

TEXT: Baker, *Astronomy* (Van Nostrand, 5th edition).

PREREQUISITES: Mathematics 1 including trigonometry, and Physics 1 (which may be taken concurrently).

Evening Division: 1951-52 (one two-hour lecture a week, and visits to the Dominion Observatory).

BIOLOGY

Associate Professor H. H. J. Nesbitt, M.A., Ph.D., F.R.E.S.

Assistant Professor of Botany W. I. Illman, B.A., M.Sc.

Lecturer E. A. O. Turnau, M.Sc.

As Carleton College is located within easy access of the Canadian national collections of botany, entomology and zoology it is advantageously placed for teaching the life sciences and particularly the taxonomic aspects of this field.

PASS COURSE

Students who are reading for a pass degree in Arts or Science and who wish to include Biology as one of their continuation subjects are advised to take Botany 1 and Zoology 1 and 2 before attempting more advanced courses.

HONOURS COURSE

Candidates who intend to read for a degree with specific honours in the biological sciences should signify their intention of applying for admission to the honours course before they begin the third year. If at the time of entry to the College the candidate has such intentions, he should so plan his courses that he may be in a position at the end of his second year to proceed with one of the three

possible options outlined below. At the same time he should bear in mind that the Department of Biology requires that he take a minor of at least three courses in Chemistry (Chemistry 6, 2 and 8) or four in Physics, or four in Mathematics; a course in logic (Philosophy 2) in his third year; an optional subject (English 3, Psychology 2, or History 9 or 23) in his fourth year; and that he have some knowledge of both French and German. (To this end the Department suggests that he make French his prescribed language other than English and that he take German AA in his third year.)

Option I—Honours in Biology (Botany). The candidate will take Botany 1 in his second year, Botany 2 and Zoology 1 in his third year, and thereafter he is advised to take Botany 3, Biology 5, and Zoology 2 in his fourth year; and Biology 20, Biology 17a, Botany 4b, and any three of Botany 5 or 6, Biology 15 or 16, Mathematics 3b, in his final year.

Option II—Honours in Biology (Zoology). The candidate will take Zoology 1 in his second year, Zoology 2 and Botany 1 in his third year, and thereafter he is advised to take Zoology 3, Zoology 5 or 7, and Biology 5 in his fourth year; and Biology 20, Biology 17a, Zoology 4b, and any three of Zoology 6, Geology 5, Botany 2, Biology 15, Biology 16, or Mathematics 3b in his final year.

Option III—Honours in General Biology. The candidate will take either Botany 1 or Zoology 1 in his second year, followed by any two of Botany 1 or 2, Zoology 1 or 2 in his third year; in his fourth and final years he will choose eight courses from the list supplied below in such a manner that Botany 2, Zoology 2, Biology 5 and 20 are included at some time in the course of his studies.

BIOLOGY 1. *General Biology*

A course designed to illustrate the fundamental principles governing life (both plant and animal), the development of organisms and the relationship of man to the world about him. This course is primarily intended for persons who do not intend to take another science subject.

TEXT: Pauli, *The World of Life* (Houghton Mifflin).

REFERENCE TEXTS: Hegner, *General Zoology* (Macmillan).

Brown, *The Plant Kingdom*.

Transeau, Sampson and Tiffany, *Textbook of Botany*.

Day Division: Annually (lectures two hours a week, laboratory three hours a week).

Evening Division: Summer 1951 only (lectures five hours a week, laboratory four hours a week).

BIOLOGY 5. *Genetics and Cytogenetics*

A lecture and demonstration course designed to illustrate the principles of genetics and the physical bases of chromosomal inheritance.

TEXT: Sinnott, Dunn and Dobzhansky, *Principles of Genetics* (McGraw-Hill).

REFERENCE TEXTS: Riley, *Genetics and Cytogenetics* (Wiley).

Sharp, *Fundamentals of Cytology* (McGraw-Hill).

Darlington, *Recent Advances in Cytology* (Blakiston).

Goldschmidt, *Physiological Genetics* (McGraw-Hill).

Gates, *Human Genetics* (Macmillan).

Advances in Genetics (Academic Press).

PREREQUISITE: Biology 1 or 11.

Evening Division: 1951-52 (seminar two hours a week).

BIOLOGY 11. General Biology

The course of study prescribed by the Ontario Department of Education for Grade XIII in the secondary schools of Ontario.

Discontinued after 1948-49 (See Biology 1).

BIOLOGY 15. General Microbiology

The general principles and practice of microbiology. Consideration will be given to the biologic, economic, ecologic and industrial importance and to the metabolic processes and the taxonomy of autotrophic, saprobic, and parasitic bacteria, yeasts, moulds and actinomycetes.

TEXT: To be announced.

PREREQUISITE: Botany 1 or Zoology 1 or Grade XIII Biology (or, with permission, Biology 1).

Evening Division: 1951-52 (lectures two hours a week, laboratory four hours a week).

BIOLOGY 16. Principles of Microscopic Investigation of Biological Materials

The theory and practice of resolving microscopic structures of plant and animal material; of vital examination, of fixation and staining, and special methods of microscopy and photomicrography.

REFERENCE TEXTS: Chamberlain, *Methods in Plant Histology* (University of Chicago Press).

Johansen, *Plant Microtechnique* (McGraw-Hill).

Lee, *Microtome's Vade-mecum* (Saunders).

Sass, *Elements of Botanical Microtechnique* (McGraw-Hill).

PREREQUISITES: Botany 1, Zoology 1 and 2. (Zoology 2 may be taken concurrently).

Not offered 1951-52.

BIOLOGY 17a. Biochemistry

Lectures on the dynamic chemistry of plant and animal tissues. (Half course) (To be followed by Botany 4b or Zoology 4b).

TEXT: Gortner, *Outlines of Biochemistry* (Wiley).

REFERENCE TEXTS: Rabinowitch, *Photosynthesis* (Interscience).

Advances in Protein Chemistry (Academic Press).

Advances in Carbohydrate Chemistry (Academic Press).

Advances in Enzymology (Academic Press).

PREREQUISITES: Botany 1, Zoology 1 and 2, Chemistry 2 and 8. (Chemistry 8 may be taken concurrently).

Not offered 1951-52.

BIOLOGY 20. History of Biology

A seminar course in the history of biology and biological theory.

REFERENCE TEXTS: Nordenskiöld, *The History of Biology* (Knopf).

Shull, *Evolution* (McGraw-Hill).

Woodger, *Biological Principles* (Keegan-Paul).

Bertalanffy and Woodger, *Modern Theories of Development* (Oxford).

Darwin, *Origin of Species*.

Sulivan, *The Limitations of Science* (New American Library).

PREREQUISITES: Biology 5, 17a; Botany 1, 2; Zoology 1, 2; and Zoology 4b or Botany 4b.

Not offered 1951-52.

Botany

BOTANY 1. General Botany and Ecology (formerly Biology 12)

Consideration of general principles of plant life will be followed by a study of plant form and function as related to the environment. Extensive readings in plant ecology and geography will be required.

TEXTS: Fritsh and Salisbury, *Plant Form and Function* (Bell).
Daubenmire, *Plants and Environment* (Wiley).

REFERENCE TEXTS: Braun-Blanquet, *Plant Sociology* (McGraw-Hill).
Cain, *Foundations of Plant Geography* (Harper).
Lyon & Buchman, *The Nature and Properties of Soil* (Macmillan).
Raunkiaer, *The Life Form of Plants and Plant Geography*.
Russell, *Soil Conditions and Plant Growth* (Longmans, Green).
Schimper, *Plant Geography*.
Trewartha, *An Introduction to Weather and Climate* (McGraw-Hill).

Day Division: 1951-52 (lectures two hours a week, laboratory four hours a week).

Evening Division: Not offered 1951-52.

BOTANY 2. Comparative Morphology, Comparative Anatomy and Evolution of the Tracheophyta

A course designed as a comprehensive, integral approach to a knowledge of the vascular plants, past and present.

REFERENCE TEXTS: Bower, *The Ferns* (Cambridge).
—, *Primitive Land Plants* (Cambridge).
Chamberlain, *Gymnosperms, Structure and Evolution* (U. of Chicago Press).
—, *Living Cycads* (U. of Chicago Press).
Seward, *Plant Life through the Ages* (Cambridge).
Eames and MacDaniels, *Introduction to Plant Anatomy* (McGraw-Hill).

PREREQUISITES: Botany 1 and Zoology 1 or 2. (Zoology 1 or 2 may be taken concurrently).

Day Division: 1951-52 (lectures two hours a week, laboratory four hours a week).

BOTANY 3. Morphology, Reproduction and Evolution of the Algae and of the Bryophytes

TEXT: To be announced.

PREREQUISITES: Botany 1 and Zoology 1 or 2. (Zoology 1 or 2 may be taken concurrently).

Not offered 1951-52.

BOTANY 4b. Plant Physiology

The fundamental principles of vegetable physiology; water relations, respiration, growth, morphogenesis and photosynthesis. (Half course) (To follow Biology 17a).

TEXT: To be announced.

PREREQUISITES: Botany 1. Biology 17a shall be taken concurrently.

Not offered 1951-52.

BOTANY 5. *Mycology*

A course devoted to the morphology, reproduction, taxonomy and evolution of the fungi.

TEXT: To be announced.

PREREQUISITE: Botany 1.

Not offered 1951-52.

BOTANY 6. *Taxonomy and Geography of the Vascular Plants*

TEXT: To be announced.

PREREQUISITE: Botany 1.

Day Division: 1951-52 (lectures two hours a week, laboratory four hours a week).

*Zoology*ZOOLOGY 1. *General Zoology, Pt. I* (formerly Biology 3)

A course devoted to a study of the comparative anatomy, taxonomy, development, evolution and ecology of invertebrate animals.

TEXT: Borradaile, Eastham, Potts and Saunders, *The Invertebrata* (Cambridge).
or Hegner, *Invertebrate Zoology* (Macmillan).

REFERENCE TEXTS: Brown, *Selected Invertebrate Types* (Wiley).

Hyman, *The Invertebrata* (McGraw-Hill).

Parker & Haswell, *Text-book of Zoology*, Vol. I (Macmillan).

Cambridge Natural History, appropriate volumes.

PREREQUISITE: Grade XIII Zoology useful but not necessary.

Day Division: 1952-53 and alternate years (lectures two hours a week, laboratory three to four hours a week).

ZOOLOGY 2. *General Zoology, Pt. II* (formerly Biology 2)

A course devoted to a study of the comparative anatomy, development and evolution of vertebrate (chordate) animals. Special attention is paid to the study of mammalian anatomy.

TEXT: Walter and Sayles, *Biology of the Vertebrates* (Macmillan).

REFERENCE TEXTS: Parker and Haswell, *Text-book of Zoology*, Vol. II (Macmillan).

deBeer, *Vertebrate Zoology* (Sidgwick and Jackson).

Hyman, *Comparative Vertebrate Anatomy* (Chicago).

Moog, *Structure and Development of the Vertebrates* (Prentice-Hall).

Craigie, *Bensley's Practical Anatomy of the Rabbit* (U. of Toronto Press).

PREREQUISITE: Grade XIII Zoology useful but not necessary.

Day Division: 1951-52 and alternate years (lectures two hours a week, laboratory four hours a week).

Evening Division: 1951-52 (lectures two hours a week, laboratory four hours a week).

ZOOLOGY 3. *Introduction to Arthropods* (formerly Biology 6)

A study of the comparative anatomy, taxonomy, development, evolution and economic importance of the animals included in the Phylum Arthropoda.

REFERENCE TEXTS: Borradaile, Eastham, Potts and Saunders, *The Invertebrata* (Cambridge).

Carter, *A General Zoology of the Invertebrates* (Sidgwick and Jackson).

Grassé, *Traité de Zoologie* (appropriate volumes) (Masson).
Parker and Haswell, *Textbook of Zoology*, Vol. I (Macmillan).

Savory, *The Arachnida* (Ed. Arnold).

Smith, Woods, et al., *Cambridge Natural History*, Vol. IV (Macmillan).

PREREQUISITES: Zoology 1 and 2.

Day Division: 1951-52 (lectures two hours a week, laboratory four hours a week).

ZOOLOGY 4b. *Animal Physiology* (formerly Biology 4)

A study of the fundamental principles of animal physiology. (Half course).

REFERENCE TEXTS: Zoethout and Tuttle, *Textbook of Physiology* (Mosbey).
Best and Taylor, *The Living Body* (Holt).
Sheer, *Comparative Physiology* (Wiley).

PREREQUISITES: Zoology 1 and 2. Biology 17a shall be taken concurrently.

Not offered 1951-52.

ZOOLOGY 5. *Entomology* (formerly Biology 7)

A course on the morphology and physiology of representatives of the more important orders and families of insects.

REFERENCE TEXTS: Snodgrass, *Principles of Insect-Morphology* (McGraw-Hill).
Wigglesworth, *Insect Physiology* (Methuen).

PREREQUISITES: Zoology 1, 2 and 3.

Day Division: 1951-52 and alternate years (lectures two hours a week, laboratory four hours a week).

ZOOLOGY 6. *Insect Taxonomy and Ecology*

A course devoted to an intensive study of the classification of insects.

REFERENCE TEXTS: Comstock, *Introduction to Entomology* (Comstock).
Imms, *Entomology* (Methuen).
Grassé, *Traité de Zoologie* (Vol. IX, *Insects*) (Masson).
and others.

PREREQUISITES: Zoology 1, 2, 3, 5. (Zoology 5 might be taken concurrently).

Not offered 1951-52.

ZOOLOGY 7. *Taxonomy and Ecology of the Vertebrates.*

A course devoted to a study of the taxonomy and geographic distribution of the major classes of vertebrates.

PREREQUISITES: Zoology 1 and 2.

Not offered 1951-52.

BOTANY

(See Biology)

CHEMISTRY

<i>Associate Professor</i> . . .	J. M. Morton, M.Sc., Ph.D.
<i>Assistant Professor</i> . . .	J. M. Holmes, M.A., Ph.D.
<i>Lecturer</i>	P. M. Laughton, B.A., M.Sc., Ph.D.
<i>Sessional Lecturer</i> . . .	F. T. Rabbitts, B.Sc.

HONOURS COURSE

A student taking an honour course in Chemistry would normally take at least Chemistry 1 and Chemistry 6 before entry to the third year. It is also recommended that Physics 2a and 2b be taken before entry to the fourth year and that Physics 3a be taken in the fourth year.

Beginning in the third year, Chemistry courses are taken in the following order: Chemistry 2, 7, 8, 4, and two or more of Chemistry 10, 11, 12. Each candidate for honours in Chemistry is required to solve a research problem and write a thesis. This is done in the final year and is listed below as Chemistry 13. Four typewritten copies of this thesis are to be deposited with the Chemistry Department not later than March 31st of the final year. One copy may be returned to the candidate.

CHEMISTRY 1. *General Chemistry*

The chemistry of the more important non-metals and metals and their compounds. The fundamental laws and principles of chemistry are emphasized.

TEXT: Briscoe, *College Chemistry*, 1949 ed. (Houghton Mifflin).

Day Division: Annually (lectures three hours a week, laboratory three hours a week).

CHEMISTRY 2. *Organic Chemistry*

An introductory course in organic chemistry dealing with the main classes of organic compounds. Both theoretical and practical aspects are considered. The laboratory work provides practice in the basic processes of synthesis and purification of organic compounds.

TEXT: Conant and Blatt, *The Chemistry of Organic Compounds* (Macmillan, 1947).

Coleman, Wauzone and Buckles, *Laboratory Manual of Organic Chemistry* (Prentice Hall, 1949).

PREREQUISITE: Chemistry 1. (It is recommended that Chemistry 6 be taken previously or concurrently).

Day Division: Annually (lectures three hours a week, laboratory three hours a week).

Evening Division: Not offered 1951-52.

CHEMISTRY 3. *Elementary Physical Chemistry*

An introductory course in physical chemistry for students in first year Engineering. The course covers states of matter, the laws of solutions, hydrogen ion concentration, thermochemistry and atomic structure. Problems to illustrate the laws of chemistry will be assigned.

TEXT: Maass and Steacie, *Introduction to Physical Chemistry* (Wiley).

PREREQUISITE: Chemistry 1.

Day Division: Annually, for first year Engineering students only (lectures three hours a week).

CHEMISTRY 4. *Intermediate Organic Chemistry*

The laboratory work, which is an important feature of the course, deals with qualitative identification of organic compounds, more advanced preparative techniques and the elements of quantitative determination.

REFERENCE TEXT: Shriner and Fuson, *Identification of Organic Compounds* (Wiley, 1946).

PREREQUISITE: Chemistry 2.

Day Division: 1951-52 (lectures three hours a week with evening class, laboratory three hours a week in day hours).

Evening Division: 1951-52 (lectures three hours a week, laboratory three hours a week).

CHEMISTRY 5. *Chemistry of Engineering Materials*

A course for second year Engineering students. It deals with the materials of engineering, water treatment, corrosion, organic compounds, fuel, rubber, plastics and explosives.

REFERENCE TEXT: Leighou, *Chemistry of Engineering Materials*.

PREREQUISITE: Chemistry 3.

Day Division: Annually, for second year Engineering students only (lectures two hours a week).

CHEMISTRY 6. *Qualitative Analysis*

Chemical equilibrium; oxidation and reduction; theory of ionization; solubility product; ionization constant; complex ions and compounds; colloids; etc. The application of the principles of chemical equilibrium to the systematic separation of the common cations and anions is practiced in the laboratory. Some elementary quantitative determinations will be done. (This course is recommended for second year students.)

TEXT: Belcher and Williams, *A Course in Qualitative Analysis* (Houghton Mifflin).

PREREQUISITES: Chemistry 1 and Mathematics 1 (including Algebra and Trigonometry).

Day Division: Annually (lectures three hours a week, laboratory three hours a week).

Evening Division: 1952-53 and alternate years (lectures two hours a week, laboratory two to three hours a week).

CHEMISTRY 7. *Quantitative Analysis*

A course in quantitative analysis covering the fundamental methods of volumetric and gravimetric analysis.

TEXT: Hamilton and Simpson, *Talbot's Quantitative Analysis* (Macmillan, 9th edition, 1948).

PREREQUISITE: Chemistry 6.

Day Division: Annually (lectures two hours a week, laboratory six hours a week). (Note: Engineering students are given lectures two hours a week during the regular academic session and take all the laboratory work during the four-week period immediately following the spring examinations.)

Evening Division: 1951-52 (lectures two hours a week, laboratory six hours a week).

CHEMISTRY 8. *Physical Chemistry*

The gaseous and liquid states; solutions; solids; equilibrium in homogeneous and heterogeneous systems; kinetics of reactions; periodic law and atomic structure; colloids and surface phenomena; electrochemistry; thermochemistry and thermodynamics.

TEXTS: Daniels, *Outline of Physical Chemistry* (Wiley, 1948 edition).
 Daniels, Matthews and Williams, *Experimental Physical Chemistry*
 (McGraw-Hill, 4th edition, 1949).

PREREQUISITES: Chemistry 6 and Mathematics 2.

Day Division: Annually (lectures three hours a week, problems one hour a week, laboratory three hours a week).

CHEMISTRY 9. *Biochemistry*

The chemistry of plant and animal substances and the processes of metabolism and nutrition.

TEXT: To be announced.

PREREQUISITE: Chemistry 2.

Discontinued. (See Biology 17a, *Biochemistry*.)

CHEMISTRY 10. *Advanced Physical Chemistry*

Selected topics in physical chemistry, including kinetics, phase rule, surface chemistry, quantum theory and electro chemistry.

REFERENCE TEXT: Glasstone, *Textbook of Physical Chemistry* (van Nostrand, 1948)

PREREQUISITE: Chemistry 8.

Day Division: Annually (lectures four hours a week, laboratory three hours a week).

CHEMISTRY 11. *Advanced Inorganic Chemistry*

The more important elements considered from the standpoint of the periodic table, radio activity, atomic structure, isotopes, nuclear chemistry, and the uses of isotropic tracers.

TEXT: To be announced.

PREREQUISITE: Chemistry 8.

Day Division: 1951-52 (lectures three hours a week, laboratory three hours a week).

CHEMISTRY 12. *Advanced Organic Chemistry*

The course deals with selected topics such as theory of reactions, stereochemistry, and the chemistry of more complex naturally occurring substances.

TEXT: To be announced.

PREREQUISITE: Chemistry 4.

Not offered 1951-52.

CHEMISTRY 13. *Research Project*

Senior students in honours Chemistry will do a research project under the direction of one of the members of the department.

Day Division: Annually (laboratory hours arranged).

CLASSICS

Lecturer D. M. Shepherd, M.A.

Sessional Lecturers in Latin W. H. Showman, M.A.

Agnes C. Sweeney, B.A.

Students electing *Greek* as a continuation subject will take Greek 2, and *two* of Greek 3, Greek 4 and Classical Civilization 1. Students electing *Latin* as a

continuation subject will take Latin 2, and *two* of Latin 3, Latin 4 and Classical Civilization 1.

Greek

GREEK A. *Elementary Greek*

A preparatory course for students who have not previously studied Greek. (Credit is given for the course only upon subsequent completion of Greek 1. If taken to make up a matriculation deficiency, no credit is allowed.)

TEXTS: To be announced.

Day Division: Annually (lectures three hours a week).

GREEK 1. *First Year Greek*

Selected readings from Greek authors; review of the elements of Greek grammar; prose composition.

TEXTS: To be announced.

PREREQUISITE: Greek A or equivalent.

Day Division: Annually (lectures three hours a week).

GREEK 2. *Second Year Greek*

Translation and interpretation of prescribed texts; prose composition; sight translation.

TEXTS: To be announced.

PREREQUISITE: Greek 1.

Not offered 1951-52.

Latin

LATIN A. *Elementary Latin*

A preparatory course for students who have not taken Latin for junior matriculation. (Credit is given for this course only upon the subsequent completion of Latin 1. If taken to make up a matriculation deficiency no credit is allowed.)

TEXTS: Thompson, Tracy and Dugit, *Essential Latin* (Clarke, Irwin).

Glassey and Bennett, *Latin Reader for High Schools* (Ryerson).

Evening Division: Annually (lectures three hours a week).

LATIN 1. *First Year Latin*

Translation and interpretation of prescribed texts; sight translation; prose composition.

TEXTS: Breslove, *Latin Composition* (Gage).

Latin Prose Selections (Nelson).

Latin Poetry Selections (Nelson).

PREREQUISITE: Latin A or its equivalent.

Day Division: Not offered 1951-52.

Evening Division: Annually (lectures three hours a week).

LATIN 2. *Second Year Latin*

Translation and interpretation of prescribed texts; sight translation; prose composition.

TEXTS: *Vergil, Aeneid I-VI*, Page (Macmillan).

Cicero, *De Amicitia*, ed. J. S. Reid (Pitt Press).

Oxford Book of Latin Verse, School edition (Oxford).

PREREQUISITE: Latin 1.

Day Division: Not offered 1951-52.

Evening Division: 1951-52 (lectures three hours a week).

LATIN 3. *Literature of the Republic*

Lyric poetry of Catullus; letters of Cicero; Roman comedy; selected readings in the history of the literature of the republic.

TEXTS: To be announced.

PREREQUISITE: Latin 2.

Not offered 1951-52.

LATIN 4. *Literature of the Empire*

Satires of Horace and Juvenal; history of Tacitus; selected readings in other authors and the history of the literature of the empire.

TEXTS: To be announced.

PREREQUISITE: Latin 2.

Day Division: 1951-52 (lectures two hours a week).

*Classical Civilization*CLASSICAL CIVILIZATION 1. *Mediterranean Civilization in the Ancient World*

A survey of the Mediterranean world in Greco-Roman times—political, economic, social and cultural history. (No knowledge of Greek or Latin is required.) (This course is listed also as History 19.)

TEXTS: To be announced.

Day Division: Annually (lectures three hours a week).

COMMERCE

Assistant Professor . . . Agnes Y. Fleming, B.Ed., M.Com.

Sessional Lecturer . . . M. E. Corlett, B.A.

COMMERCE 1. *Commercial Law*

The law of contract and agency, sale of goods, negotiable instruments, partnerships and companies, bankruptcy and insolvency, bills of sale and chattel mortgages.

Day Division: Annually (lectures three hours a week).

Evening Division: 1951-52 (lectures three hours a week).

COMMERCE 2. *Business Finance*

A study of the capital of business; methods and costs of raising capital; shares and bonds; the capital market; operating problems, dividends, reserves, combinations, bankruptcy. (This course may be taken as a course in Economics.)

PREREQUISITE: Economics 2.

Day Division: Annually (lectures three hours a week).

Evening Division: Not offered 1951-52.

COMMERCE 3b. *Business Policies*

In this course will be studied the principles and logic applicable to the administrative problems of modern business. Such topics as wage policies, procurement and sales policies, and control policies will be discussed. Particular attention will be given to the bases on which reliable managerial decisions are made. (Half course.)

PREREQUISITE: Economics 2.

Discontinued after 1950-51.

COMMERCE 4. *Labour Economics and Industrial Relations*

An examination of the position of the labourer in the Canadian economy and of the economic and sociological theory related to this study. The place and function of the Government in the relationship between management and labour. Trade unions—their aims and history. Collective bargaining—its purposes and meaning to industry and to labour. (This course may be taken as a course in Economics.)

PREREQUISITE: Economics 2.

Not offered 1951-52.

COMMERCE 5. *Marketing*

A study of how modern industrial society organizes to carry on the work of distribution; the essential operations of marketing and their performance by the various marketing agencies at retail and wholesale levels. Emphasis is placed upon change and the need for adaptation to change in the marketing process.

PREREQUISITE: Economics 2.

Day Division: Not offered 1951-52.

Evening Division: 1951-52 (lectures two hours a week).

COMMERCE 6. *Business Problems*

A study of the operations of business to discover how it has met problems of capitalization, production, control, personnel and marketing. From this study detailed blueprints for the initiation of a small business will be drawn up.

PREREQUISITE: Open to students in the fourth year of the B.Com. course.

Discontinued after 1948-49.

ECONOMICS

Assistant Professor . . . H. S. Gordon, A.M.

Lecturers H. E. English, B.A.

A. E. Carlsen, M.A.

Sessional Lecturers . . . W. E. Duffett, B.Com., M.Sc. (Econ.)

G. S. Watts, M.A.

Alison Kemp, B.A.

HONOURS COURSE

A candidate for specific honours in Economics will be required to spend five years from junior matriculation and should signify his intention of applying for honours before commencing his third year. He should take Economics 2 and one of Political Science 2, History 3 or History 9 during the second year.

The honours requirements consist of extensive work in Economics with a minor (at least four courses) in Political Science or History. The student should take Economics 3 and 8 in his third year; the remainder of his programme for the third and subsequent years must be planned in consultation with the Department of Economics.

ECONOMICS 2. *Principles of Economics*

The course contains four sections: First, the basic ingredients of the economy—resources and wants; second, the organization of the economy for the satisfaction of wants (the part played by business, labour and government); third, the processes of allocation and income determination, and the associated problems of monopoly, unemployment and inflation; and finally, international economics and its relationship to a peaceful world.

Day Division: Annually (lectures two hours a week, group discussion one hour a week).

Evening Division: Annually (lectures two hours a week). Also Summer 1951 (lectures five hours a week).

ECONOMICS 3. *Canadian Economic Development*

(Offered in the Department of History as History 23.)

ECONOMICS 4. *Economics for Engineers*

The object of this course is to give Engineering students an introduction to some of the economic problems existing in the world of today, with particular reference to Canada. (Half course.)

Day Division: Annually, for second year Engineering students only (lectures one hour a week, *both* terms).

ECONOMICS 5. *Natural Resources of Canada* (Formerly Economics 100).

Forest, mineral and water; character and distribution; development, utilization and conservation; problems and policies. Special attention will be given to the problems of development in Canada's Northland.

PREREQUISITE: Economics 2.

Discontinued after 1949-50. (See Geography 2, *The Geography of Canada*).

ECONOMICS 6. *Agricultural Economics and Policy* (Formerly Economics 101).

The economic structure of Canadian agriculture; the position of agriculture in the Canadian economy and the impacts on it of government policy and international trade.

PREREQUISITE: Economics 2.

Not offered 1951-52.

ECONOMICS 7. *International Trade* (Formerly Economics 102)

It is the aim of this course to provide the student with a wide working basis. The first half of the course deals with the mechanics of international trade, the foreign exchange market, bills of exchange, the balance of payments, tariffs, foreign exchange control, etc. Attention is then turned to the theory of international trade, from the more primitive concepts down to the recent analytical structures. Throughout the balance of the course some attention will

be given to special studies of topical interest. But the primary aim is to put to practical use the knowledge of the mechanics and theoretical tools of international trade gained earlier in the course, through an interpretation of several phases of Canadian economic history relating to the international field.

PREREQUISITE: Economics 2.

Evening Division: 1951-52 (lectures two hours a week).

ECONOMICS 8. *Money and Banking* (Formerly Economics 103)

The theory and practice of banking and finance, with specific reference to the purposes and functions of the country's important financial institutions. Attention will be paid to the role of money and finance in the production and distribution of the national income and in the problem of unemployment. Relevant problems of international trade and foreign exchange will also be introduced.

PREREQUISITE: Economics 2.

Day Division: Annually (lectures two hours a week).

Evening Division: 1951-52 and alternate years (lectures two hours a week).

ECONOMICS 9. *Modern Economic Theory*

The first part of the course deals with the individual organisms within the economy—the firm, the industry, and the household. Questions of demand, price, output, monopoly and competition are treated. The second part deals with the theory of the economy as a whole. Questions of national income and its composition, business cycles, and economic development are discussed.

PREREQUISITE: Economics 2 and one other course in Economics.

Day Division: 1952-53 and alternate years (lectures two hours a week).

ECONOMICS 10. *Economic History* (Formerly Economics 105)

This course is concerned with tracing economic development from feudalism to finance capitalism, particularly in the United Kingdom and Western Europe.

PREREQUISITE: Economics 2.

Day Division: Not offered 1951-52.

Evening Division: 1951-52 (lectures two hours a week).

ECONOMICS 11. *Public Finance and Fiscal Policy* (Formerly Economics 106)

The course deals with fiscal policy in modern economic society. It covers the role of government expenditures and taxation, and also the relation of fiscal policy to employment, prices, etc. The first part of the course examines, in general terms, the changing economic role of the state, the nature and extent of public expenditure, and the ways in which the expenditure can be financed. The traditional principles of taxation are thoroughly examined. The latter part of the course covers the development of Canadian fiscal policy from Confederation to the present day in the light of changing national economic conditions. A final survey covers the characteristics and problems of public finance in Canada at present and the outlook for the immediate future. An attempt is made to evaluate these characteristics and problems in the light of the principles studied in the first part of the course.

PREREQUISITE: Economics 2.

Evening Division: 1951-52 and alternate years (lectures two hours a week).

ECONOMICS 12. *Economic Policy* (Formerly Economics 107)

A review will be given of the development of economic policy on all government levels during recent decades. With this review as a background, a more exhaustive analysis will be made of the extent to which the Dominion Government has become involved in formulating and implementing policy in selected fields such as industrial development, agriculture,

transportation, monopolies, unemployment; trade unions, etc. The principal concern of the course will be to work toward an understanding of the reasoning behind governmental policies—those which are proposed as well as those which have already been implemented.

PREREQUISITE: Economics 2.

Day Division: 1951-52 (lectures two hours a week).

Evening Division: Not offered 1951-52.

ECONOMICS 13. *Comparative Economic Institutions*

This course consists of the first half of Economics 14. It deals with the economic institutions which have developed in the modern economy in the fields of industry, commerce and government. The different types of institutions will be compared and those existing in Canada will be compared with those of other countries. (Half course.) (For Commerce students only; others take Economics 14.)

PREREQUISITE: Economics 2.

Discontinued after 1949-50.

ECONOMICS 14. *Modern Economies*

The first half of this course is concerned with the development of the economic institutions of Canada and the United States, beginning with their European antecedents. The significance of industrial concentration will receive considerable treatment. The second half includes a study of the economic organization of Nazi Germany, the Soviet Union, the United Kingdom and other economies.

PREREQUISITE: Economics 2.

Day Division: 1951-52 (lectures two hours a week).

ECONOMICS 15. *History of Economic Thought*

The course will study the contributions of the principal figures in the development of economics. It will endeavour to examine their ideas in a background of the economic problems of their times and the developments which were taking place concurrently in the other fields of human inquiry. An effort will be made to indicate the extent to which economic ideas influenced and were influenced by historical events.

PREREQUISITE: Economics 2.

Day Division: 1951-52 and alternate years (lectures two hours a week).

ECONOMICS 16. *Statistical Methods in the Social Sciences*

An introductory course dealing with the use of statistical methods in economics and the other social sciences. The principal statistical measurements will be studied. The use of statistical analysis as a method for the precise and reliable acquisition of knowledge will be stressed. The misuse of statistical information will be examined. A critical approach to statistical methods will be maintained throughout the course. (This course will yield a half credit only, if Mathematics 3b has been taken for credit.)

PREREQUISITE: Mathematics 1 and Economics 2, or the permission of the instructor.

Day Division: Annually (lectures two hours a week; problem work).

Evening Division: 1952-53 and alternate years (lectures two hours a week; problem work).

ECONOMICS 100. *Tutorial in Economics*

During the term the student will write a series of papers which will be the subjects of discussions between him and his tutor. The topics of the papers will be selected in the light of the student's knowledge, interests and objectives; tutors will be assigned on the same bases.

PREREQUISITE: Permission of the Department.

Day Division: Annually (tutorial hours arranged).

Evening Division: Annually (tutorial hours arranged).

ECONOMICS 101. *Tutorial in Economics*

An additional tutorial in economics may be taken subsequent to or concurrently with Economics 100. Methods of study will be designed to accord with the student's individual needs.

PREREQUISITE: Permission of the Department.

Day Division: Annually (tutorial hours arranged).

Evening Division: Annually (tutorial hours arranged).

ECONOMICS 105. *Economic Research*

The course will be conducted as a seminar and will deal with the principles and methods of research in economics. The first part will consist of a study of the concepts employed in modern economic analysis and the problems involved in translating them into specific applications. A short review will also be given of the general principles of statistical calculation and inference. The second part of the course will study the application of these principles and methods to specific research problems. The participation of senior government research economists in this part of the course is anticipated.

PREREQUISITE: Permission of the Department.

Not offered 1951-52.

See also courses in Commerce. Commerce 2 and Commerce 4 may be counted as Economics courses for the purpose of meeting continuation subject requirements.

ENGINEERING

Assistant Professor . . . E. W. Stedman, C.B., O.B.E., etc.

Sessional Lecturers . . . R. B. Gamble, B.Sc.

S. G. Tackaberry, C.B.E., B.A.Sc.

All courses in this group are offered annually, in the day division only. They may be taken only by candidates for the Diploma in Engineering.

ENGINEERING 1. *Mechanics*

Statics. Fundamental principles of the laws of equilibrium of forces; application to the determination of stresses in simple structures.

Dynamics. General equations of motion; work, energy and momentum, angular momentum, simple harmonic motion.

TEXT: Girvin, *Applied Mechanics*.

Lectures two hours a week *both* terms. Laboratory two hours a week, *both* terms.

ENGINEERING 2. *Applied Mechanics*

Statics. Coplanar, concurrent, parallel and non-concurrent force systems. Graphically and mathematically. Flexible cables; friction, centroid, centres of gravity, moment of inertia.

Dynamics. Kinematics of a particle; kinematics of a rigid body; curvilinear motion; rotation; work energy and power; impulse and momentum.

Hydraulics. Fluid properties; hydrostatics, including pressure, gauges, centre of pressure, pressure on curved surfaces, stability of a gravity dam. Stability of flotation, including condition for stability, metacentric height, period of roll. General principles of fluid motion, including basic principles, equation of continuity, Bernoulli's equation.

TEXTS: Girvin, *Applied Mechanics*.

Ellis, *Elements of Hydraulic Engineering*.

PREREQUISITE: Engineering 1.

Lectures two hours a week, *both terms*. Laboratory two hours a week, Course A *both* terms, Course B *second* term only.

ENGINEERING 3. *Descriptive Geometry*

A continuation of the work taken in Engineering 12 (Mechanical Drawing I), including solution of problems involving point, line and plane, revolution, intersection of surfaces, perspective drawing; mining problems.

TEXT: Wellman, *Technical Descriptive Geometry*.

PREREQUISITE: Engineering 12.

Lectures and laboratory two hours a week, *both terms*.

ENGINEERING 4. *Materials of Engineering*

A. Manufacture of iron and steel, non-ferrous metals and alloys; wood, stone and brick, concrete, plastics, rubber.

TEXT: Moore, *Materials of Construction*.

B. Strength of materials: stress, strain, modulus of elasticity, Poisson's ratio, statically indeterminate loads, factors of safety, thermal stresses, thin-walled cylinders, riveted joints, welded joints, torsion in shafting, flexure formula, bending moment and shearing force diagrams, shear stress in beams, deflection of beams, moment-area method for slopes and deflection, principle of superposition, columns and struts, creep and fatigue.

TEXT: Seely, *Resistance of Materials*.

Lectures one hour a week *first term*, two hours a week *second term*.

(Laboratory work included in Engineering 2.)

ENGINEERING 5. *Mechanics of Machines*

Displacement, velocity, acceleration, instant centres, velocity and acceleration in plane motion, slide crank, cams, rolling contact, tooth gearing; involute teeth, gear trains, belt length, general principles for belts, special mechanisms, crank effort.

TEXTS: Guillet, *Kinematics of Machine*.

Headley, *Work Book in Kinematics*.

Lectures two hours a week, laboratory two hours a week, *first term*.

ENGINEERING 6. *Heat Engines, Elementary*

Definitions, first and second laws of thermodynamics, gas laws, absorption of heat, relation of specific heats, expansions in general, isothermal, adiabatic, work of expansion, Carnot cycle, reversibility, properties of steam, use of steam tables, steam calorimeters, thermal cycles (description only), compressor cycles.

TEXT: Allen and Bursley, *Heat Engines*.

Lectures, one hour a week, *second term*.

ENGINEERING 7. *Engineering Problems I*

Working out problems under supervision. The problems are based on the current work in the classes.

Problem periods, three hours a week, *both terms*.

ENGINEERING 8. *Engineering Problems II*

Working out problems under supervision. The problems are based on the current work in the classes.

Problem periods, one hour a week *first term*, two hours a week *second term*.

ENGINEERING 9. *Surveying Field Work*

An obligatory summer school in surveying for all first year Engineering students is held under arrangement with McGill University for a period of four weeks in the spring following the first year's work at Carleton College.

ENGINEERING 10. *Surveying I*

General principles and practice of surveying with the chain, transit and level. Field work.

TEXT: *Elementary Surveying* (University of Toronto Press).

Lectures one hour a week, *both terms*. Approximately six to eight hours will be devoted to instrument and field work in the first term.

ENGINEERING 11. *Surveying and Mapping II*

Continuation of the work of Engineering 10 (Surveying I), including mapping.

TEXT: Breed, *Surveying*.

Lectures one hour a week, laboratory three hours a week, *both terms*.

ENGINEERING 12. *Mechanical Drawing I*

Fundamental drawing techniques and their application to the solution of engineering problems, lettering, the use of instruments and materials, freehand orthographic projection and pictorial sketching, auxiliary views, sections, pictorial drawings, fasteners, dimensioning, working drawings, assembly drawings, tracing, checking, blueprinting and shop terms. Also work in projection involving true lengths and shapes, developed surfaces and intersections.

TEXTS: French, *Engineering Drawing*, 7th edition.

Svensen, Schuman and Street, *Drafting Problem Layouts*, Series B.

Wellman, *Technical Descriptive Geometry*.

Laboratory six hours a week, *both terms*.

ENGINEERING 13. *Mechanical Drawing II*

Continuation of the work of Engineering 12 (Mechanical Drawing I). Conventions, sections, detail and assembly drawings, sketching, piping layouts, use of welding symbols, elements of architectural and structural drawing, pictorial illustrations, use of references.

TEXT: French, *Engineering Drawing*, 7th edition.

Laboratory three hours a week, *both terms*.

ENGINEERING 14. *Engineering and Society*

A series of lectures intended to show the relation between the work of engineers and society.

TEXT: Young, Innis and Dale, *Engineering and Society* (University of Toronto Press).

Lectures one hour a week, *second term*.

ENGINEERING 15. *Public Speaking for Engineers*

Each engineering student is given the opportunity to address the class and visitors, on an engineering subject, during the second year.

Practice, one hour a week, *second term*.

ENGLISH LANGUAGE AND LITERATURE

Assistant Professors . . . A. M. Beattie, A.M.

G. B. Johnston, M.A.

Lecturers . . . M. M. MacOdrum, M.A., Ph.D.

G. J. Wood, M.A.

Sessional Lecturers . . . Dorothy Chamberlin, M.A.

F. J. D. Hoeniger, M.A.

Assistants . . . Mary A. Phillips, M.A.

Audrey E. Strutt, B.A.

English 1 and 10 will be taken in the first year. Students in the day division who do not plan to continue the study of English beyond their second year, and all students in the evening division, will take English 2 in their second year. Candidates for the pass or general honours degree in the day division who plan further study of English beyond the second year will choose English 4 in the second year and will follow that course with English 5, 3, and 7, in that order. Journalism students are advised to take English 2 and, if they so choose, follow it with English 3 or English 7 or both.

HONOURS COURSE

Candidates for a degree with specific honours in English Language and Literature should attend as many of the courses offered as their timetables permit. English 8a is preliminary to all honours courses in English. Each honours student will plan his programme and pursue his course under the supervision of a departmental adviser to whom he will make frequent and regular reports on his reading. In addition, he will be expected to participate in several seminars each year.

A student of English is expected to possess and use a good dictionary. These are recommended:

The Concise Oxford Dictionary (Oxford).

Webster's Collegiate Dictionary (Thomas Allen, Toronto).

The American College Dictionary (Harper).

Also, every student of English should have available for frequent reference a handbook. Recommended:

Perrin, *Writer's Guide and Index to English* (Gage, Toronto).

Fowler, *Modern English Usage* (Oxford).

ENGLISH 1. *Introduction to College Literature*

Study of selected plays, poems, essays, and short stories. The purpose of the course is to acquaint the student with basic principles of literary appreciation and with the chief forms and modes of literary expression. (English 10 is required of all English 1 students.)

TEXTS:

Brooks and Warren, *Understanding Poetry*; Sophocles, *The Theban Plays* (Penguin); Shakespeare, *Hamlet* (Nelson); Morrell (ed.), *Four English Comedies*; Williams, *A Book of English Essays*; Larsen and Macdonald, *A Century of Short Stories*; Conrad, *Lord Jim*.

Day Division: Annually (lectures three hours a week).

Evening Division: Annually (lectures two hours a week).

ENGLISH 2. *English Literature from Chaucer to Browning*

A survey of English literature from the fourteenth to the nineteenth century—a course for evening students and for day students who do not elect English as a continuation subject. Essay-writing and regular participation in discussion groups are required.

TEXT: *The College Survey of English Literature*, Shorter Edition.

PREREQUISITE: English 1 or 11.

Day Division: Annually (lectures three hours a week, group discussion one hour a week).

Evening Division: Annually (lectures two hours a week, group discussion one hour a week). Also Summer 1951 (lectures five hours a week).

ENGLISH 3. *English Literature from 1885 to the Present*

The literature of reaction to Victorianism and of the twentieth century. The influence on form and content of new ideas in politics, art, psychology, and religion. The following works of fiction, drama, biography, and poetry will be carefully considered: Hardy, *The Mayor of Casterbridge*; Butler, *The Way of All Flesh*; Bennett, *The Old Wives' Tale*; Wells, *The History of Mr. Polly*; Conrad, *Heart of Darkness*; Forster, *A Passage to India*; Maugham, *Cakes and Ale*; Joyce, *A Portrait of the Artist as a Young Man*; Woolf, *Mrs. Dalloway*; Lawrence, *The Prussian Officer*; Huxley, *Point Counter Point*; Greene, *Brighton Rock*; Wilde, *Salome*, *The Importance of Being Earnest*, *The Picture of Dorian Gray*; Shaw, *Major Barbara*, *Man and Superman*, *Saint Joan*; Synge, *The Playboy of the Western World*; O'Casey, *Junio and the Paycock*; Strachey, *Eminent Victorians*; Eliot, *Selected Poems* (Penguin); Lawrence, *Selected Poems* (Penguin); Poetry of Hardy, Hopkins, Housman, Yeats, Wilde, Kipling, Owen, Edith Sitwell, Auden, MacNeice, Day Lewis, Barker, Thomas.

PREREQUISITE: English 2 or English 4 and 5.

Day Division: Annually (lectures three hours a week).

Evening Division: Not offered 1951-52.

ENGLISH 4. *English Authors from Chaucer to Dr. Johnson*

A study of selected masterpieces in English literature from the late Middle Ages to the middle of the eighteenth century. Although devoted to particular works, the course will provide the student with a general outline of literary developments.

TEXTS:

Chaucer, *The Canterbury Tales* (selected); Spenser, *The Faerie Queene*, Book I; Shakespeare, *Twelfth Night*, *Lear*; Donne, *Poems*; Milton, *L'Allegro*, *Il Penseroso*, *Lycidas*, *Sonnets* (selected), *Paradise Lost* (in part), *Samson Agonistes*; Bunyan, *Pilgrim's Progress*; Dryden, *Poems*; Pope, *Poems*; Swift, *Gulliver's Travels*; Defoe, *Moll Flanders*; Fielding, *Tom Jones*; Johnson, *Preface to Shakespeare*, *Lives of the Poets* (in part).

PREREQUISITE: English 1 or 11. (Not open to students who have taken English 2.)

Day Division: Annually (lectures three hours a week, group discussion one hour a week).

ENGLISH 5. *Nineteenth Century Literature*

A study of the mediaeval and Victorian poetry and prose. In poetry the following writers will receive special consideration: Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Rossetti, Morris, Arnold, Swinburne; in prose, Wordsworth, Coleridge, Carlyle, Newman, Ruskin, Mill Arnold. In addition, the student will be required to read the following novels: Austen, *Sense and Sensibility*; Scott, *Ivanhoe*; Dickens, *David Copperfield*; Bronte, *Wuthering Heights*; Thackeray, *Vanity Fair*.

TEXTS: To be announced.

PREREQUISITE: English 4.

Day Division: Annually (lectures three hours a week).

(Honours students will attend, in addition, English S9, seminar on *Nineteenth-Century Thought*.)

ENGLISH 6. *Life and Works of Shakespeare*

A study of the mediaeval origins of English drama, its development to and through the sixteenth and early seventeenth centuries; a survey of theatrical conditions of the Elizabethan period; lectures on the chief Elizabethan and Jacobean dramatists; intensive study of Shakespeare's environment and development as a dramatist, with careful reading of certain plays. (Additional readings in English drama will be required of specific honours students.)

TEXT: A good one-volume edition of Shakespeare's plays. Recommended:

Kittredge (ed.), *The Complete Works of Shakespeare* (Ginn, 1936).

Neilson and Hill (editors), *The Complete Plays and Poems of William Shakespeare* (Houghton Mifflin, 1942).

Harrison (ed.), *Major Plays and Sonnets* (Harcourt Brace, 1948)

PREREQUISITE: English 2 or English 4 and 5.

Day Division: Not offered 1951-52.

Evening Division: 1951-52 (lectures two hours a week).

(Honours students will attend, in addition, English S6, seminar on *Elizabethan Drama*).

ENGLISH 7. *American and Canadian Literature*

American literature of the Romantic and Victorian periods and the early twentieth century. Franklin, *Autobiography*; Irving, *Selected Prose*; Whitcher (ed.), *Poetry of the New England Renaissance*; Emerson, *Selected Prose and Poetry*; Poe, *Selected Prose and Poetry*; Whitman, *Leaves of Grass*; Thoreau, *Walden*; Hawthorne, *The Scarlet Letter*; Melville, *Moby Dick*; James, *The American*; Twain, *The Adventures of Huckleberry Finn*. The course will include a series of lectures on Canadian poetry since Confederation. (Suggested text: A. J. M. Smith (ed.), *The Book of Canadian Poetry*, revised edition).

PREREQUISITE: English 2 or 3, or English 4 and 5.

Day Division: Not offered 1951-52.

Evening Division: 1951-52 (lectures two hours a week).

ENGLISH 8a. *Introduction to Honours in English*

A preparatory course devoted to the consideration of critical principles, methods of study and research in literature, bibliography, use of libraries, literary forms and types, elements of prosody, outlines of literary history. (Half course.)

TEXTS: To be announced.

PREREQUISITE: Open to honours students in English.

Day Division: Annually (seminar two hours a week, *first term*).

ENGLISH 8b. *Old English*

A brief but intensive study of Anglo-Saxon as foundation for a study of the development of English sounds, spelling, vocabulary, and grammar. (Half course.)

PREREQUISITE: Open to honours students in English.

Not offered 1951-52.

ENGLISH 9. *Introduction to Mediaeval Literature*

A survey of literary types, authors, and chief works between the Norman Conquest and the fifteenth century, with particular attention to the following: *The Owl and the Nightingale*, *Piers Plowman*, *Sir Gawain and the Green Knight*, *Morte d'Arthur*. Additional selections from Cook, *A Literary Middle English Reader*. (This course includes English S2, *The Life and Works of Chaucer*.)

PREREQUISITE: Open to honours students in English.

Day Division: 1951-52 (lectures two hours a week).

ENGLISH 10. *English Composition*

A review and practice course in grammar and composition for first-year students. Other students, of any year, who show deficiencies in expression may be required to take all or certain parts of English 10. The course will be conducted by means of a weekly class, regular writing assignments, frequent tests, and individual conferences with the instructor. (This course carries credit only as part of English 1 or 11. If taken as a single subject the tuition fee is that of a half course.)

TEXTS: To be announced.

Day Division: Annually (class one hour a week, practice period one hour a week).

Evening Division: Annually (class and practice periods two hours a week).

ENGLISH 11.

The course in English literature prescribed for Grade XIII by the Ontario Department of Education.

Discontinued after 1948-49. (See English 1.)

ENGLISH 12. *English for Engineering Students*

A course in present-day literature and composition for Engineering students.

TEXTS: Jones, Ludwig and Perry, *Modern Minds* (Heath, 1949).

Grant, Beacher and Duff, *Correctness and Precision in Writing* (Houghton Mifflin).

Day Division: Annually, for first-year Engineering students only (lectures two hours a week).

ENGLISH 13. *English for Commerce Students*

A reading, discussion, and writing course for third-year Commerce students. (Half course.)

TEXTS: A list of titles may be obtained from the Registrar's office.

PREREQUISITE: English 2.

Discontinued after 1949-50.

ENGLISH 14. *Seventeenth Century Literature*

A consideration of the chief authors, exclusive of Milton, and the major literary productions of the seventeenth century. The development of English poetry and prose from Donne to Dryden. (Participation in English S5 is required of honours students registered in English 14.)

TEXTS: Coffin and Witherspoon, *Seventeenth Century Prose and Poetry*; Bunyan, *Pilgrim's Progress*; Donne, *Complete Poems* (ed. Bennett); Howarth (ed.), *Minor Poets of the Seventeenth Century*.

PREREQUISITE: English 2 or English 4 and 5.

Not offered 1951-52.

ENGLISH 15a. *Eighteenth Century Prose*

The chief prose authors of the age of Anne, with particular consideration of the early stages of English journalism, the writings of Swift, the creation of a standard prose-style. The early development of the English novel. The life and works of Samuel Johnson. (Half course. The second term of English 16 may be taken to complete full-course credit.)

TEXTS: Bredvold, McKillop, Whitney, *Eighteenth Century Poetry and Prose*; Swift, *Gulliver's Travels*; Boswell, *Life of Johnson*; Johnson, *Lives of the Poets*.

PREREQUISITE: English 2 or English 4 and 5.

Not offered 1951-52.

ENGLISH 15b. *Eighteenth Century Poetry*

The poetry of the Neo-classic era, with special emphasis upon the works of Dryden, Pope, and Johnson. The course will include not only some study of the continental influences upon the period, but also consideration of the decline of Neo-classicism. (Half course. The second term of English 16 may be taken to complete full-course credit.)

TEXTS: Bredvold, McKillop, Whitney, *Eighteenth Century Poetry and Prose*.

PREREQUISITE: English 2 or English 4 and 5.

Day Division: 1951-52 (lectures two hours a week, seminar one hour a week, *first term*).

ENGLISH 16. *Shakespeare and Milton*

The lives and major works.

TEXTS: Shakespeare, *Major Plays and Sonnets* (ed. G. B. Harrison); *The Student's Milton* (ed. Hanford).

PREREQUISITE: English 2 or 4.

Not offered 1951-52.

ENGLISH 17. *The English Novel*

The development of the art of fiction in English literature, from its beginnings in the eighteenth century, through the major Victorian novelists, to the chief authors of the twentieth century.

The course requires acquaintance with the following works: Defoe, *Moll Flanders*; Richardson, *Pamela*; Fielding, *Tom Jones*; Austen, *Pride and Prejudice*; Scott, *The Heart of Midlothian*; Dickens, *David Copperfield*; Thackeray, *Vanity Fair*; Eliot, *Middlemarch*; James, *The Ambassadors*; Hardy, *Tess of the d'Urbervilles*; Moore, *Esther Waters*; Bennett, *The Old Wives' Tale*; Galsworthy, *The Man of Property*; Forster, *Howards End*; Lawrence, *The Plumed Serpent*; Joyce, *A Portrait of the Artist as a Young Man*; Woolf, *To the Lighthouse*; Huxley, *Point Counter Point*.

PREREQUISITE: English 2. Students who have credit in English 4 or English 5, or both, may take English 17 only by arrangement with the instructor.

Not offered 1951-52.

SEMINARS

Honours students and others, at the discretion of the instructor, will meet in small groups, usually once a week, for discussion of readings assigned. Students will be expected to take turns in reading essays on prescribed topics and conducting discussions. Essay-writing in the honours courses will be prescribed through the seminars. (If a seminar is taken as a separate subject, the tuition fee is that of a half course.)

Not all of the following topics will be offered in any one year. The annual choice of seminars will depend on the number of students registered in English honours and on their specific needs.

ENGLISH S1. *Classics of the Western Tradition*

Reading, in English translations, of *The Odyssey*, passages from *The Iliad*, passages from the *Old Testament*, Dante's *Inferno*, selected essays by Montaigne. (Instructors in other departments join the English department in supervising this seminar.)

ENGLISH S2. *The Life and Works of Chaucer*

In the first term, *The Canterbury Tales*; in the second term, *The Book of the Duchess*, *Troilus and Criseyde*.

ENGLISH S3. *Modern Texts*

A detailed and analytic study of several difficult twentieth-century works, notably *Ulysses*, *The Waste Land*, *Four Quartets*, and poems by Yeats and Dylan Thomas.

ENGLISH S5. *Spenser and Milton*

Study of the two great English poets of the Renaissance. Special consideration of *The Faerie Queene* and *Paradise Lost*.

ENGLISH S6. *Elizabethan Drama*

Study of representative plays by Kyd, Marlowe, Jonson, Lyly, Webster and others.

ENGLISH S7. *Literary Criticism from Aristotle to the Present*

ENGLISH S8. *The Novel in the Eighteenth Century*

The contributions to form and content made by Defoe, Richardson, Fielding, Sterne, Goldsmith, Smollett, Horace Walpole, Mrs. Radcliffe.

ENGLISH S9. *Nineteenth-Century Thought.*

ENGLISH S12. *Canadian Poetry since Confederation*

FINE ARTS

Sessional Lecturers . . . H. H. Hubbard, A.M., Ph.D.
Tom Wood
W. S. A. Dale, M.A.

Courses in the history of art are offered by Carleton College in co-operation with the National Gallery of Canada. The collections and study materials of the National Gallery afford the student unusual opportunities for direct observation.

FINE ARTS 1. *A Survey of Art in Europe and America*

A survey from prehistoric to modern times. The architecture, sculpture and painting of the successive periods are studied with the object of indicating the special forms of beauty characteristic of each period, and of interpreting art in terms of the historical, religious and economic backgrounds.

TEXTS: Roos, *An Illustrated Handbook of Art History* (Macmillan).
Pevsner, *An Outline of European Architecture* (Pelican, 1945).

Not offered 1951-52.

FINE ARTS 2. *The Art of North America*

The architecture, sculpture and painting of Canada, the United States and Mexico from colonial times to the present are studied in relation to European art; special emphasis is placed on Canadian art and its cultural background.

Not offered 1951-52.

FINE ARTS 3. *Renaissance and Baroque Art*

Painting, sculpture and architecture from the fifteenth to the eighteenth centuries with special emphasis on the great painters.

Not offered 1951-52.

FINE ARTS 4. *Studio Course in Drawing and Painting*

Working from the model and still life, students will begin with practical exercises in charcoal. Later in the course the student will be introduced to colour through the medium of his choice. (This course may be taken more than once, but only once for credit toward a degree. The fee is that of a course comprising lectures and laboratory work.)

Evening Division: 1951-52 (studio sessions six hours a week).

FINE ARTS 5. *Nineteenth and Twentieth Century Art*

European painting from 1800 to the present day, with reference also to sculpture and architecture.

Evening Division: 1951-52 (lectures two hours a week).

FRENCH

Assistant Professor . . . J. P. Young, B.A., D.ès L.

Lecturer J. S. Tassie, M.A.

Sessional Lecturers . . . Helen R. MacDonald, B.A.

Adélaré Gascon, M.A., Ph.D., B.Paed.

G. S. DuVernet, M.A.

As Carleton College is situated in a centre where French is spoken by a large percentage of the population, much stress is laid on oral practice. Lectures are conducted in French, as far as is possible. In addition, the students are encouraged to do a considerable amount of supplementary reading from books recommended by the instructors. A beginner's course in French is offered in the Extension Department of the College for students who have not completed junior matriculation in that subject.

FRENCH 1. *Introduction to French Literature*

The novel and short story by authors of the nineteenth and twentieth centuries. Grammar, translation, oral practice.

TEXTS: Dondo and Ernst, *French Review Grammar* (Holt)

Micks and Rideout, *Témoins d'une époque* (Oxford)

Daudet, *Tartarin sur les Alpes* (Macmillan)

Day Division: Annually (lectures three hours a week; extra hours arranged).

Evening Division: Annually (lectures three hours a week). Also Summer 1951 (lectures five hours a week).

FRENCH 2. *Nineteenth Century French Literature*

Drama, novel and short story. Supplementary reading. Composition, oral practice.

TEXTS: Parker, *French Practice Book* (Heath)

Augier and Sandeau, *Le Gendre de M. Poirier* (Heath)

Balzac, *Le Père Goriot* (Scribners)

Prargment, *Trente-trois contes et nouvelles* (Holt).

PREREQUISITE: French 1.

Day Division: Annually (lectures three hours a week).

Evening Division: Annually (lectures three hours a week). Also Summer 1951 (lectures five hours a week).

FRENCH 3. *La Littérature et la pensée françaises des 17e et 18e siècles.*

A. Le 17e siècle—la première génération des grands classiques; la deuxième generation. Textes—Corneille, Horace; Racine, Britannicus; Molière, Les Femmes Savantes; Descartes, Discours de la méthode; La Fontaine, Fables; Bossuet, une des Oraisons funébres; Boileau, L'Art Poétique; La Bruyère, Les Caractères.

B. Le 18e siècle—les nouvelles tendances; la lutte philosophique. Textes—J.-J. Rousseau, Contrat Social; Voltaire, Zadig, Lettres philosophiques; Diderot, Oeuvres Choies; Beaumarchais, Le Barbier de Seville.

C. Composition. Le français oral. Textes—Whitmarsh and Jukes, *Advanced French Grammar* (Longmans, Green); Cassell's *French Dictionary*.

PREREQUISITE: French 2.

Day Division: Annually (lectures three hours a week).

Evening Division: 1952-53 and alternate years (lectures three hours a week).

FRENCH 4. *Littérature française contemporaine*

La période du symbolisme; nouvelles tendances de la période d'après-guerre. La poésie—Verlaine, Rimbaud, Mallarmé, Jammes, Valéry. Le roman—Proust, France, Gide, Mauriac, Malraux. Le théâtre—Roman, Claudel, Giraudoux, Sartre.

REFERENCE TEXTS: G. Lanson, *Histoire de la littérature française* (Hachette).

Whitmarsh and Jukes, *Advanced French Grammar* (Longmans, Green).

Cassell's *French Dictionary*.

PREREQUISITE: French 3.

Day Division: Annually (lectures three hours a week).

Evening Division: 1951-52 and alternate years (lectures three hours a week).

FRENCH 5. *Littérature canadienne de langue française*

Le roman et la poésie; le folklore; la presse. Les étudiants sont invités à produire des études originales en faisant des travaux de recherches aux Archives publiques (journaux canadiens de langue française des dix-huitième et dix-neuvième siècles, et autres documents de cette époque). Travaux de traduction. Le français oral.

La poésie—Camille Roy, Morceaux choisis d'auteurs canadiens. La presse—P.-A. de Gaspé, Les Anciens Canadiens; Gérin-Lajoie, Jean Rivard; Robert de Roquettebrune, Les Habits Rouges; Grignon, Un homme et son péché; Ringuet, 30 Arpents; Charbonneau, Ils posséderont la terre; Guèvremont, Marie-Didace; Trudel, Vézine; Lemelin, Les Plouffe.

REFERENCE TEXTS: Camille Roy, *Histoire de la littérature canadienne*.

Whitmarsh and Jukes, *Advanced French Grammar* (Longmans, Green).

Cassell's *French Dictionary*.

PREREQUISITE: French 3.

Day Division: Annually (lectures three hours a week).

Evening Division: 1951-52 and alternate years (lectures three hours a week).

FRENCH 6. *Les Maîtres de la littérature française*

Chefs-d'oeuvre de la littérature et de la pensée françaises depuis la Renaissance jusqu'au 20^e siècle. Travaux de traduction et le français oral.

TEXTS: Steinhauer and Walter, *Omnibus of French Literature* (Macmillan).

G. Lanson, *Histoire de la littérature française* (Hachette).

Cassell's *French Dictionary*.

PREREQUISITE: French 4 or 5.

Not offered 1951-52.

GEOGRAPHY

Sessional Lecturers . . . J. W. Watson, M.A., Ph.D., F.R.G.S.

Jessie W. Watson, M.A.

GEOGRAPHY 1. *General Geography*

A geographical description of the continents, their climate and resources, together with the human, economic and political geography of the principal nations of the world.

TEXT: To be announced.

Day Division: 1951-52 (lectures, map reading and discussion, three hours a week).

Evening Division: Not offered 1951-52.

GEOGRAPHY 2. *The Geography of Canada*

This course will outline the physical, historical and economic geography of principal Canadian regions.

TEXTS: J. L. and J. Robinson, *Canada* (Longmans, Green).

Griffith Taylor, *Canada* (Methuen).

Currie, *Economic Geography of Canada*.

Day Division: Not offered 1951-52.

Evening Division: 1951-52 (lectures two hours a week).

GEOGRAPHY 3. *Physical and Regional Geography*

This course will outline the principles of physical geography, covering the relationships between geology, topography, weather and climate, soils, vegetation, wild life in the natural landscape. It will describe the natural regions of North America and show their influence on the historical, economic and social geography of the continent.

PREREQUISITE: Geography 1 or 2.

Evening Division: To be offered 1952-53.

See also Geology 3 (*Physiography and Structural Geology*).

History 23 (*Canadian Economic Development*).

GEOLOGY

Sessional Lecturers . . . F. J. Alcock, B.A., Ph.D., F.R.S.C., F.G.S.A.

M. E. Wilson, B.A., Ph.D., F.R.S.C.,

F.G.S.A., F.A.A.S.

Alice E. Wilson, B.A., Ph.D., F.R.S.C.,

F.G.S.A.

S. C. Robinson, M.A.Sc., Ph.D.

GEOLOGY 2. *General Geology*

A course in general geology; the earth and solar system; minerals and rocks; the agencies of erosion; deformation within the earth (mountain building and uplift); the origin, history, and life of earth.

TEXT: Longwell, Knopf, Flint, Schuchert and Dunbar, *Outlines of Geology*.

Day Division: Annually (lectures two hours a week, laboratory two hours a week, three field excursions).

Evening Division: Annually (lectures two hours a week; two or three Saturday afternoon excursions).

GEOLOGY 3. *Physiography and Structural Geology*

Land forms and their origin. Physiographic cycles. Influence of surface features on human activities. The interpretation of topographic and geological maps. Rock structures and their origin: folding, faulting, metamorphism.

TEXTS: Lobeck, *Geomorphology* (McGraw-Hill).
Niven, *Structural Geology*.

PREREQUISITE: Geology 2.

Evening Division: 1951-52 (lectures two hours a week, laboratory two hours a week).

GEOLOGY 4. *Mineralogy*

An introductory course concerning the recognition, properties and occurrence of approximately 100 common minerals; basic concepts of crystal lattices symmetry and axial ratio and an introduction to crystal chemistry. Laboratory work involves megascopic examination of minerals, crystals and crystal models and blowpipe analysis.

TEXT: E. S. Dana, *A Textbook of Mineralogy*, 4th Edition revised by W. E. Ford (Wiley, 1932).

PREREQUISITE: Geology 2 (may be taken concurrently).

Evening Division: 1951-52 (lectures two hours a week, laboratory two hours a week).

GEOLOGY 5. *Palaeontology*

The principles of palaeontology; the classification of invertebrates, their morphology and evolutionary history, with reference to the broader phases of evolution of vertebrates; and an introduction to the practical value of invertebrates in the interpretation of stratigraphy and historical geology.

REFERENCE TEXTS: Shimer, *An Introduction to the Study of Palaeontology*.
Twenhofel and Shrock, *Invertebrate Palaeontology*.
Romer, *Vertebrate Palaeontology*.

PREREQUISITE: Geology 2 or permission of the instructor.

Evening Division: 1951-52 (lectures two hours a week, laboratory two hours a week).

GERMAN

Sessional Lecturer . . . Richard Hoff, Dr. jur.

GERMAN A. *Beginners' German*

An elementary course in German language and literature, designed to meet the needs of students who enter the College with little or no knowledge of German. The work will comprise the elements of grammar, the building up of a basic vocabulary, translation exercises, and the reading of easy German prose and poetry. (Credit is given for this course only upon the subsequent completion of German 1. If taken to make up a matriculation deficiency, no credit is allowed.)

TEXT: Curtis, *Basic German* (Prentice-Hall).

READING: Hagboldt, *Fabeln* (Heath).
Hagboldt, *Anekdoten und Erzählungen* (Heath).

Evening Division: Annually (lectures three hours a week).

GERMAN AA. *Beginners' German for Science Students*

An elementary course for Science students. The work will comprise the elements of grammar, the building of a basic vocabulary, translation exercises and the reading of German scientific texts. (May be taken for credit only by Science students.)

TEXT: Curtis, *Basic German* (Prentice-Hall)

READING: Fiedler and Sandbach, *A First German Course for Science Students* (Oxford)

Evening Division: Annually (lectures three hours a week).

GERMAN 1. *First-year College German*

In this course the main stress will be put on reading and oral practice. Also translation from and into everyday German and a review of the elements of German grammar.

TEXTS: Hagboldt and Kaufman, *German Review and Composition* (Heath).
Schinnerer, *Reading German* (Macmillan).

READING: Durian, *Kai aus der Kiste* (Holt).

PREREQUISITE: German A or its equivalent.

Evening Division: Annually (lectures three hours a week).

GERMAN 2. *Second-year College German*

A comprehensive and more detailed review of German grammar; written and oral exercises in translation and composition; easy German conversation; reading of modern German prose and some of the masterworks of nineteenth century poetry.

TEXT: Chiles, *German Composition and Conversation* (Ginn).

READING: Foltin, *Aus nah und fern* (Houghton Mifflin, 1950).

Lang and Needler, *The German Reader* (Ryerson).

Fulda, *Hoebensonne* (Appleton-Century).

PREREQUISITE: German 1.

Evening Division: Annually (lectures three hours a week).

GERMAN 3. *Third-year College German*

Advanced written and oral translation exercises and composition, sight translation and conversation. Students will be encouraged to increase the fluency and correctness of their spoken German. Reading and discussion of classical and modern German prose and drama.

TEXT: Chiles, *German Composition and Conversation* (Ginn).

READING: Goethe, Prose selections (mimeo.).

Hebbel, *Agnes Bernauer* (Heath).

von Hofe and Marcuse, *A German Sketchbook* (Houghton-Mifflin, 1950).

PREREQUISITE: German 2.

Evening Division: Annually (lectures two hours a week).

GERMAN 5. *Classical German Literature*

Fourth-year college German. Exercises in advanced and highly idiomatic translation. German composition. The reading will include a standard work of the classical period of German literature.

TEXT: Wanstall, *Tests in German Composition and Grammar* (Harrap).

READING: Goethe, *Faust*, Part I (Heath).

Heffner, Rehder and Twaddell, *Faust Vocabulary* (Heath).

Bithell, *An Anthology of German Poetry 1880-1940*. (Methuen).

PREREQUISITE: German 3 (may be taken concurrently).

Evening Division: 1952-53 and alternate years (lectures two hours a week).

GERMAN 6. *Modern German Literature*

An alternative course in fourth-year college German which is, at the same time, designed for students who have taken German 5 and wish to improve their knowledge further. Exercises in advanced and highly idiomatic translation. German composition. The reading will include a work by an eminent German writer of the present.

TEXTS: Wanstall, *Alternative Tests in German Composition and Grammar* (Harrap).

Waterhouse, *A Short History of German Literature* (Methuen).

READING: Hermann Hesse, *Knulp* (Oxford).

Others to be announced.

PREREQUISITE: German 3.

Evening Division: 1951-52 and alternate years (lectures two hours a week).

GREEK

(See Classics)

HISTORY

Professor James A. Gibson, B.A., B.Litt., D.Phil.

Lecturers David M. L. Farr, M.A.

(on leave of absence, 1951-52)

Gordon S. Couse, B.A.

Morris Zaslow, B.Ed., M.A.

Sessional Lecturer J. M. McQueen, M.A.

Sessional Lecturer in

International Relations . Stephen A. Czako, M.Com., Dr. rer. pol.,
Dip. Int. Law

Courses in the Department of History are designed in part to enable students to benefit from the unique resources of the national capital. Students in Canadian and colonial history are encouraged to make use, for example, of the materials of the Public Archives of Canada; students in international relations and associated subjects of the wealth of contemporary information available from the Department of External Affairs and other departments of the Government of Canada, from the information offices of the foreign missions established in Canada, and from a variety of non-governmental and voluntary agencies which maintain national headquarters in Ottawa. The Department is able to draw upon the files of the map library of the Geographical Branch (Department of Mines and Technical Surveys), and of the anthropological and other collections of the National Museum of Canada.

The aim of the Department, in upper-year courses, is to provide a sound working knowledge of documentary sources where they apply, of maps and cartographic aids to the study of history, and to assign for report in group discussions subjects which will repay investigation of the materials readily at hand. Students in the honours course will be encouraged to develop an increasing acquaintance with recent advances in historiography and bibliography.

Certain of the courses now offered have been planned in collaboration with other departments of instruction, in particular Economics, English, Political Science, and the science group.

HONOURS COURSE

A candidate for specific honours in History will be required to complete five years from junior matriculation, and should signify his intention of applying for admission to the honours course before beginning his third year. He should take in second year History 3 and *either* Economics 2 *or* Political Science 2.

The honours requirements consist of extensive work in History with a minor (at least four courses), ordinarily in Economics or Political Science. For the third and subsequent years, the course requirements in History will include History 5, 8, 13 and 25; *either* History 4 *or* 6; *one* of History 7, 9, or 10; and *three* of History 12, 14, 15, 16, 17, 18, 24.

HISTORY 1. *Main Directions in Modern History, 1870-1919*

This course will provide a preliminary survey of the main global areas under the impact of industrialism, big-power imperialism, and the competing economic and political ideas of the pre-war period. It will also provide, through discussion groups, for a consideration of specific problems of population, resources, migration, and of the principal personalities of the period. (Although intended primarily for first-year students this course may be taken for upper-year credit, in which case additional essays and reading will be required.)

TEXT: Students are recommended to provide themselves with *one* of the following:

Hall and Davis: *The Course of Europe Since Waterloo* (Appleton-Century).

Shapiro, *Modern and Contemporary European History* (Houghton-Mifflin).

Aljberg, *Sedan to Stresa: Europe from 1870* (Van Nostrand).

Day Division: Annually (lectures two hours a week, group discussion one hour a week).

Evening Division: 1951-52 (lectures two hours a week, group discussions monthly).

HISTORY 2. *History of Europe, 1400-1789*

An introductory course in European history, beginning with the later Middle Ages in Western Europe and continuing on to the Renaissance and Reformation, the period of dynastic rivalry in the 16th century, the era of the wars of religion, the Commercial Revolution, the age of Louis XIV, the emergence of Russia and Prussia in European affairs, cultural trends after the Reformation, and the eve of the French Revolution.

TEXT: Robinson and Shotwell, *An Introduction to the History of Western Europe* (Ginn, 1946).

PREREQUISITE: History 1 or 11.

Discontinued after 1948-49.

HISTORY 3. *History of North America in the Colonial Period*

An introduction to the history of Canada and the United States, giving attention to geographic factors in North American history and the exploration and settlement of the continent to the end of the eighteenth century. The development of the Spanish, English and French empires in North America will be described, noting the political institutions, economic life and social organizations of each region. The course will conclude with the Anglo-French rivalry for North America, the American Revolution, and the effects of the Revolution settlement upon British North America to 1791.

TEXT: Long, *A History of the Canadian People*, Vol. I (Ryerson), *or* Savelle, *Foundations of American Civilization* (Clarke, Irwin).

RECOMMENDED FOR REFERENCE: Cotterill, *Short History of the Americas* (Prentice-Hall); Burpee, *Historical Atlas of Canada* (Nelson).

PREREQUISITE: History 1 or 11.

Day Division: Annually (lectures three hours a week).

Evening Division: 1951-52 (lectures two hours a week).

HISTORY 4. *History of Europe, 500-1450*

This course, dealing with the mediaeval foundations of European history, will investigate the emergence of a unique civilization in Western Europe; its expansion and relations with the Islamic and Byzantine civilizations; the process of development within its economy, social structure, politics, arts and intellectual activity; the role of Christianity as related to all these aspects of secular life; and the relationship between the mediaeval and modern phases of Western Civilization.

TEXT: Ferguson and Bruun, *Survey of Western Civilization*, Vol. I (Houghton-Mifflin).

PREREQUISITE: History 1 or 11.

Day Division: 1952-53 and alternate years (lectures three hours a week).

HISTORY 5. *English History to 1689*

This course will consider the settlement of peoples and the growth of corporate life in early Britain; continental invasions and feudal organization; the emergence of an English spirit and its expression in the monarchy and Parliament. Careful attention will be given to the constitutional developments reflected both in national and local government under the Tudor and the Stuart sovereigns.

TEXT: Trevelyan, *History of England* (Longmans).

RECOMMENDED FOR REFERENCE: Stephenson and Marcham, *Sources of English Constitutional History* (Harpers).

PREREQUISITE: History 2, 4 or 6.

Day Division: 1951-52 (lectures and discussion three hours a week).

HISTORY 6. *History of Europe, 1450-1648*

The primary concern of this course will be to arrive at an accurate appreciation of the Renaissance and the Reformation, by considering the development of the concepts themselves, the degree to which they represent, as historical phenomena, a departure from the Middle Ages and a foreshadowing of the Modern way of life, and the causes and results of the changes which they did involve.

TEXT: Ferguson and Bruun, *Survey of Western Civilization*, Vol. I, (Houghton-Mifflin).

Readings will be assigned.

PREREQUISITE: Beginning in 1951-52, History 4, 5 or 9 will be prerequisite.

Day Division: 1951-52 (lectures and discussion three hours a week).

Evening Division: 1951-52 (lectures and discussion two hours a week).

HISTORY 7. *British Expansion Overseas and the British Empire*

This course will begin with a survey of the movements of people and ideas in the great age of maritime discovery. It will deal with the interaction of official policy and commercial opinion and with the British reaction to the "instinct of Empire" from 1783 onwards, concluding with consideration of the ideas of the "undeveloped estate". Special attention will be given to 20th century advances towards self-government in the dependent empire, and to the operation of the Colonial Welfare and Development Acts since 1945.

TEXTS: Williamson, *A Short History of British Expansion* (Macmillan).

Knaplund, *The British Empire, 1815-1939* (Harpers).

Carrington, *An Exposition of Empire* (Cambridge University Press).

Contemporary reading will be assigned.

PREREQUISITE: History 6. Recommended: History 3.

Day Division: 1951-52 (lectures and discussion three hours a week).

HISTORY 8. *History of the United States of America*

This course will consider the colonial background of American history; the American Revolution and the making of the Constitution; the expansion of the Union, the sectional struggle, the Civil War, the era of reconstruction; the emergence of modern America, the political history of the United States after 1877, and the United States in world politics.

TEXT: Faulkner, *American Political and Social History* (Crofts).

RECOMMENDED FOR REFERENCE: Commager, *Documents of American History* (Crofts); *American History Atlas* (Hammond).

PREREQUISITE: History 3.

Day Division: Annually (lectures three hours a week).

HISTORY 9. *The Development of Western Civilization from Mediaeval Times*

This course is designed to be of assistance to students majoring in other fields (e.g., English, Economics, Political Science, and in the natural sciences), by providing a comprehensive approach to the historical development of the particular fields in which they are interested. For students of history, the main interest will be to determine the extent to which the Middle Ages have set the pattern of modern society, and the extent to which modern society has departed from the mediaeval, in religion, culture, political and economic practice and social organization. The culmination of this study will be an evaluation, in the light of historical comparison, of the concepts which are important to our society.

TEXT: To be announced.

PREREQUISITE: Permission of the Department. (This course will ordinarily be open only to students in the third and higher years.)

Not offered 1951-52.

HISTORY 10. *English Social History*

This course is designed especially to accommodate students who wish a comprehensive knowledge of English history as a background for other fields of specialization such as English literature, political science, economics and social policy. Its central theme will be the transition from feudal to modern social organization and habits of daily life. This will involve, however, an examination of its causal relationship with economic and political practice, intellectual speculation, religious belief and the arts. There will be opportunities for private investigation in special spheres of interest.

TEXT: Trevelyan, *English Social History* (Longmans).

PREREQUISITE: History 1 or 11.

Day Division: 1951-52 (lectures and discussion three hours a week).

HISTORY 11. *North America and the Modern World*

This course will provide a general background for further studies in history. It will begin with a survey of main influences upon the North American continent and will lead on to a consideration of Canada's advance to nationhood within the British Commonwealth of Nations and to the rise of the United States as a world power. Attention will also be given to the course of international relations since 1914.

TEXT: McInnis, *North America and the Modern World* (Dent).

Discontinued after 1949-50. (See History 1.)

HISTORY 12. *History of Europe: Westphalia to Waterloo* (1648-1815).

This course will consider the ideas of absolute monarchy in France under Louis XIV; the Puritan Revolution in England; the rise of Russia and changes in the Baltic area; the growth of Prussia and the rebirth of Austria in German affairs; Great Britain and France in the eighteenth century; the competition for empire in the eighteenth century; the enlightened despots; the beginnings of the Industrial Revolution; the Age of Reason; the French Revolution and the age of Napoleon in Europe.

TEXT: Ferguson and Bruun, *Survey of European Civilization*, Vol. II (Houghton-Mifflin).

RECOMMENDED FOR REFERENCE: Stearns, *Pageant of Europe* (Harcourt, Brace).

PREREQUISITE: History 2, 4 or 6.

Not offered 1951-52.

HISTORY 13. *Canada from 1791: The Evolution of Canadian Self-Government*

This course will consider at the outset the transition from French Canada to British North America, and the political conflicts which arose from differences in racial background and political experience. In addition to emphasis on the constitutional evolution from representative to responsible government, and from federation to autonomy, attention will be given to influences on the government of Canada from Britain and from the United States, and to the emergence of Canada into the world community.

TEXTS: Kennedy, *The Constitution of Canada* (Oxford).

Brebner, *North Atlantic Triangle* (Ryerson).

PREREQUISITE: History 3.

Day Division: Annually (lectures three hours a week).

Evening Division: 1951-52 (lectures two hours a week).

HISTORY 14. *History of Modern Europe, 1815-1919*

This course will commence with a description of Europe in the era of the French Revolution and Napoleon as the setting for modern European history. The Congress of Vienna and the period of international government in Europe, the era of revolutions to 1848, the impact of the Industrial Revolution, the making of Italy, the consolidation of Germany, the Franco-Prussian War, Russia and the Near Eastern Question, national policies after 1871, cultural trends in the nineteenth century and the diplomatic prelude to World War I will be considered as important features of the history of Europe in the nineteenth century.

TEXT: Hall and Davis, *The Course of Europe Since Waterloo* (Appleton-Century).

RECOMMENDED FOR REFERENCE: Stearns, *Pageant of Europe* (Harcourt, Brace).

PREREQUISITE: *Two of:* History 1, 2, 4, 6, 11, 12.

Not offered 1951-52.

HISTORY 15. *English History from 1689*

This course will consider mainly the constitutional development of England from the Revolution Settlement until the outbreak of the First World War, with special reference to the development of cabinet government, the development of party mechanisms, reaction and reform in the parliamentary structure, and the social and political outlook of Victorian England. Opportunity will be offered for intensive work on documentary sources touching upon constitutional development.

TEXTS: Trevelyan, *History of England* (Longmans).

Robertson, *Select Statutes, Cases and Documents* (Methuen).

PREREQUISITE: History 5. Recommended: History 12.

Not offered 1951-52.

HISTORY 16. *An Introduction to International Relations, 1919-1939*

This course, designed primarily for upper-year students majoring in history, political science, public administration and economics, will consider the peace settlements, 1919; the period of alliances; the growth and decline of the League of Nations; the search for security and the return of power politics; the re-emergence of Germany and the end of the treaties. Facilities will be provided for work with official documents of the period, and also for intensive work on maps.

TEXT: Carr, *International Relations between the Two World Wars, 1919-1939* (Macmillan).

RECOMMENDED FOR REFERENCE: Potter, *An Introduction to the Study of International Organization* (Appleton-Century); Horrabin, *An Atlas of Current Affairs* (Gollancz; Knopf); François-Poncet, *De Versailles à Potsdam: La France et le problème allemand contemporain, 1919-1945* (Flammarion).

PREREQUISITE: Permission of the Department.

Evening Division: 1951-52 (lectures two hours a week, group discussion two hours fortnightly).

HISTORY 17. *The British Commonwealth of Nations*

This course, designed primarily for honour students in history, political science, economics, journalism, and public administration, will deal with the philosophy, structure, and development of the Commonwealth association under the Crown. It will survey the formation and expression of opinion, both official and non-official, regarding Commonwealth policies. Official documents will be drawn upon extensively, and individual report projects will be assigned.

TEXT: To be announced.

RECOMMENDED FOR REFERENCE: Hodson, *Twentieth-Century Empire* (Faber); Mansergh, *The Commonwealth and the Nations* (Oxford); Carter, *The British Commonwealth and International Security* (Oxford); Soward, *The Changing Commonwealth* (Oxford).

PREREQUISITE: Permission of the Department.

Not offered 1951-52.

HISTORY 18. *Canada-United States Relations, 1898-1948*

This course, designed primarily for honour students in history, political science; economics, public administration and journalism, will trace the growth of official and non-official machinery in the relations between the two countries, with special emphasis on the period 1938-1948. It will likewise consider the impact of the principal personalities of the period, and attempt to assess the importance in the world community of the example of Canada-U.S. co-operation. Individual report projects will be assigned.

TEXT: Brebner, *North Atlantic Triangle* (Ryerson).

RECOMMENDED FOR REFERENCE: McInnis, *The Unguarded Frontier* (Doubleday-Doran).

PREREQUISITE: Permission of the Department.

Not offered 1951-52.

HISTORY 19. *Mediterranean Civilization in the Ancient World*

(Offered in the Department of Classics as *Classical Civilization 1.*)

HISTORY 23. *Canadian Economic Development*

As an introduction to the economic history of Canada, this course will consider the growth of civilization on the North American continent, the influences of environment, and the impact of ideas and institutions from other areas upon North American development. Readings and report topics will be assigned. (This course is also listed as Economics 3.)

Day Division: Annually (lectures two hours a week, group discussion one hour a week).

Evening Division: Summer 1951 only (lectures five hours a week).

HISTORY 24. *Modern Diplomatic History, 1878-1945*

This course, designed for senior students majoring in the social sciences, will give special attention to the alliance and *entente* systems of the European powers and to rivalries in colonial policies and the resulting spheres of influence. It will also consider the principal personalities within the alliance system; the approach to judicial settlement by conferences; the diplomatic background of the First World War; the peace settlements; and the inter-war period, culminating in a documentary study of the onset of the Second World War and the peace treaties which emerged from it.

TEXTS: To be announced.

PREREQUISITE: Permission of the Department. (This course will ordinarily be open only to students in the third and higher years.)

Evening Division: 1951-52 (lectures two hours weekly, group discussion two hours fortnightly).

HISTORY 25. *The Philosophy of History*

This course seeks to provide students in various fields of specialization with an opportunity to consider the place which the study of history occupies with the total range of intellectual disciplines, and the contribution which it has made towards answering the fundamental questions of human speculation. It will proceed from a discussion of the methods and limits of historical investigation to a critical treatment of Greek, Roman and European philosophies of history. It will be the responsibility of participants to read, in preparation for class discussions, the major works under consideration and to undertake some research upon implicit philosophies in representative works of various periods.

TEXTS: To be announced.

PREREQUISITE: Permission of the Department. (This course will ordinarily be open only to students in the fourth and higher years, and preference will be given to students in honours courses in any department.)

Day Division: 1951-52 (seminar hours to be arranged).

HISTORY 35. *Dissertation for Specific Honours in History*

Candidates for specific honours in History will be required to present, at the end of their fifth year, a dissertation involving research into a problem of historical interpretation, and presentation of it in a fashion displaying an adequate competence in historical method. The subject for research will be settled in consultation with the Department and a supervisor will be assigned. The candidate will be publicly examined upon his dissertation after presentation.

Day Division: Annually (tutorial hours arranged).

HISTORY S1. *Fourth-year Honours Seminar*

This seminar will discuss problems of historical method, including the sources of history, the essentials of historical research, historical criticism, the weighing of evidence, bias in historical recording, and the mechanics and vocabulary of historical writing with special emphasis on the preparation of historical papers. (Credit for this seminar will be given only if it is taken in conjunction with a History honours course.)

Not offered 1951-52 (See History 25).

JOURNALISM

*Professor and Director of
the Department* . . .

Wilfrid Eggleston, M.B.E., B.A.

Lecturer

W. H. Kesterton, B.A., B.J.

Sessional Lecturers

J. Douglas Leechman, B.Sc., M.A., Ph.D.

Robert McKeown, B.A.

Seminar Leaders

W. B. Herbert, B.A., LL.B.

Leslie McFarlane

Field Work Supervisor .

Vincent Pask

Note: Journalism subjects may be taken only by candidates for the degree of Bachelor of Journalism.

Preparatory Lectures for Second-year Journalism Students

A series of meetings with members of the staff of the Department of Journalism will be arranged for the guidance of students enrolled in the second year of the Journalism course. This series will include several introductory talks on the history and craft of journalism, practical exercises, and vocational counsel. Details as to dates, themes, and instructors will be published on the bulletin board early in the teaching term. Second-year Journalism students will be expected to attend these sessions, which will be listed in the official schedule of classes.

JOURNALISM 1. *Introduction to Journalism*

A broad survey of the whole field. Discussion of free lance writing, with practical exercises in the magazine article, the newspaper feature and the short story. Marketing. Personal qualifications and opportunities. Some account will be given of outstanding journalists and publications in Canada and elsewhere.

RECOMMENDED READING: Wolseley and Campbell, *Exploring Journalism* (Prentice-Hall).

Day Division: Annually (lectures and laboratory periods, four hours a week).

JOURNALISM 2. *Fundamentals of Reporting*

The nature of news values; how to recognize and collect news; how to analyse, organize and report it. Interviewing and news gathering. This is mainly a practical course, based on assignments in reporting and other forms of writing.

RECOMMENDED READING: Wolseley and Campbell, *Exploring Journalism* (Prentice-Hall).

Day Division: Annually (lectures and laboratory periods, four hours a week; group discussions).

JOURNALISM 3. *Editing*

Copy-reading and head-writing. This course will provide practical instruction in the duties and responsibilities of the deskman, and training in reading copy and writing headlines. The responsibilities and opportunities of the editor in his community will be discussed; the ethics of journalism; freedom of the press; the law and the press; censorship in war and peace; news policy; the sources and interpretation of foreign news; layout; the use of illustrations.

TEXT: Bastian and Case, *Editing the Day's News* (Macmillan).

PREREQUISITE: Journalism 1.

Day Division: Annually (lectures three hours a week).

JOURNALISM 4. *Interpretative Reporting*

Coverage of governmental activities and other specialized fields such as business, music, drama, the film, politics, the popularization of science, the column; the book review. Development of sources and contacts. Writing for the ear in the radio newscast, the radio talk and commentary. This will be mainly a practical course based on assignments. Methods of research; filing; work in newspaper library and morgue.

TEXT: MacDougall, *Interpretative Reporting* (Macmillan).

PREREQUISITE: Journalism 2.

Day Division: Annually (lectures three hours a week).

JOURNALISM 5. *Career Seminar in Journalism*

Round table discussions with guest speakers. Each student in Journalism 5 will be required to choose a current topic of Canadian interest for extensive live research and study as preparation for an oral report, which will be followed by questioning from instructor and group. Vocational guidance. Groups will be arranged whenever possible to meet the needs of those who have special interests or ambitions.

PREREQUISITE: For fourth year Journalism students.

Day Division: Annually (Round table sessions, two to three hours a week).

LATIN
(See Classics)

MATHEMATICS

<i>Professor</i>	. . . . .	L. N. Richardson, M.A., M.Sc.
<i>Associate Professor</i>	. .	M. S. Macphail, M.A., D.Phil.
<i>Assistant Professors</i>	. .	J. W. Mayne, M.A., M.Sc., (on leave of absence, 1951-52)
		N. D. Lane, M.A., Ph.D.
<i>Sessional Lecturers</i>	. . .	Nathan Keyfitz, B.Sc.
		D. K. Dale, B.A.
		J. G. Enns, M.A.
		L. W. Rentner, B.A.
		R. F. Wilson, B.A.
		R. G. Stanton, M.A., Ph.D.
		H. L. Armstrong, M.Sc.
		R. J. Semple, M.A.
		P. N. Somerville, B.Sc.

Students wishing to take several courses in Mathematics, but who are not planning to take honours in Mathematics, are advised to choose, after Mathematics 1, from Mathematics 2, 3a, 3b, 3c, 8, 9a, 9b, 9c, 15a.

HONOURS COURSE

Students intending to take honours in Mathematics should include in the second year Mathematics 2, 9a and 9b. In the following years honour Mathematics students normally take these courses: In third year, Mathematics 8, 9c and 15a; in fourth year, Mathematics 10, 11, 16b and 18a; in fifth year, Mathematics 12a, 12b, 17, 19a, 21a.

MATHEMATICS 1. *Algebra, Geometry, Trigonometry*

(Any two of the above subjects constitute a full credit for students not intending to take further courses in mathematics. Students planning to take Engineering, Bachelor of Science or Bachelor of Commerce courses will take all three subjects. The tuition fee for one of the three is that of a half course; the fee for any two or three, taken in the same year, is that of a full course.)

TEXTS: Petrie, Baker, Levitt and MacLean, *Algebra*.

Durrant and Kingston, *A New Analytic Geometry*.

Miller and Rourke, *Plane Trigonometry and Statics*.

Day Division: Annually (lectures two hours a week in each subject).

Evening Division: Annually (lectures two hours a week in each subject).

Also Summer 1951 (lectures 2½ hours a week in each subject).

MATHEMATICS 2. *Calculus*

An introductory course in differential and integral calculus, with emphasis on the fundamental processes and applications.

TEXT: Love, *Elements of Differential and Integral Calculus*.

PREREQUISITE: Mathematics 1.

Day Division: Annually (lectures three hours a week).

Evening Division: Annually (lectures three hours a week). Also Summer 1951 (lectures five hours a week).

MATHEMATICS 3a. *Mathematics of Investment*

Simple and compound interest, discount, annuities, perpetuities, amortization, sinking funds, bonds, debentures, depreciation, probability and its application to life insurance. (Half course.)

TEXT: Hart, *Mathematics of Investment*.

PREREQUISITE: Mathematics 1.

Day Division: Annually (lectures two hours a week *both terms*).

Evening Division: Annually (lectures 1½ hours a week, *both terms*).

MATHEMATICS 3b. *Elementary Mathematical Statistics—Part I*

Graphs, tables, frequency distributions, averages and measures of central tendency, dispersion, skewness, kurtosis, elementary probability, probability distributions, elements of sampling, statistical inference, sample analysis of pairs of measurements, applications to data in physical, biological and other scientific fields. (Half course). (See also Economics 16, *Statistical Methods in the Social Sciences*.)

TEXT: Wilks, *Elementary Statistical Analysis*.

PREREQUISITE: Mathematics 1.

Evening Division: 1951-52 (lectures three hours a week, *first* term).

MATHEMATICS 3c. *Elementary Mathematical Statistics—Part II*

Regression and correlation theory, probability distributions, index numbers and analysis of time theories, statistical inference, chi-square tests, simple analysis of variance. (Half course.)

TEXT: Wilks, *Elementary Statistical Analysis*.

PREREQUISITE: Mathematics 3b.

Evening Division: 1951-52 (lectures three hours a week, *second* term).

MATHEMATICS 4a. *Algebra and Spherical Trigonometry*

Solution of equations, complex numbers, determinants, infinite series, annuities, spherical trigonometry. (Half course.)

TEXT: Rosenbach and Whitman, *College Algebra*.

PREREQUISITE: Mathematics 1.

Day Division: Annually, for first year Engineering students only (lectures three hours a week, *second* term). (Non-engineering students are referred to Mathematics 9b.)

MATHEMATICS 4b. *Analytic Geometry*

Review of the conic sections and simple properties. Introduction to solid analytic geometry. (Half course.)

TEXT: Rider, *Analytic Geometry*.

PREREQUISITE: Mathematics 1.

Day Division: Annually, for first year Engineering students only (lectures three hours a week, *first* term). (Non-engineering students are referred to Mathematics 9a.)

MATHEMATICS 5. *Calculus*

Functional notation, limits, differentiation, maxima and minima, curvature. Integration with applications to simple problems concerning areas, volumes, lengths, centres of gravity, moments of inertia, work and pressure.

TEXT: Love, *Differential and Integral Calculus*.

PREREQUISITE: Mathematics 1.

Day Division: Annually, for first year Engineering students only (lectures three hours a week). (Non-engineering students are referred to Mathematics 2.)

MATHEMATICS 6. *Calculus*

Partial differentiation, multiple integrals with applications to volumes, moments of inertia, Taylor's Theorem, hyperbolic functions, differential equations.

TEXT: Love, *Differential and Integral Calculus*.

PREREQUISITE: Mathematics 5.

Day Division: Annually, for second year Engineering students only (lectures three hours a week). (Non-engineering students are referred to Mathematics 8.)

MATHEMATICS 7. *Spherical Trigonometry*

PREREQUISITE: Mathematics 1.

Discontinued after 1949-50. (Included thereafter in Mathematics 4a.)MATHEMATICS 8. *Differential and Integral Calculus*

A second course in calculus with an introduction to differential equations.

TEXT: Love, *Differential and Integral Calculus*.

PREREQUISITE: Mathematics 2.

Day Division: Annually (lectures three hours a week).*Evening Division:* 1951-52 (lectures two hours a week).MATHEMATICS 9a. *Analytic Geometry*

Properties of the conics, homogeneous co-ordinates. Introduction to solid geometry. (Half course.)

TEXT: Smith, Salkover and Justice, *Analytic Geometry*.

PREREQUISITE: Mathematics 1.

Day Division: Annually (lectures three hours a week, *second* term).*Evening Division:* 1951-52 (lectures three hours a week, *second* term).Also Summer 1951 (lectures $2\frac{1}{2}$ hours a week).MATHEMATICS 9b. *Algebra*

Theory of equations, complex numbers, logarithms, determinants and mathematical induction. (Half course.)

TEXT: Rosenbach and Whitman, *College Algebra*.

PREREQUISITE: Mathematics 1.

Day Division: Annually (lectures three hours a week, *first* term).*Evening Division:* 1951-52 (lectures three hours a week, *first* term).Also Summer 1951 (lectures $2\frac{1}{2}$ hours a week).MATHEMATICS 9c. *Intermediate Algebra*

Eliminants, resultants, and discriminants; fundamental theorem of algebra; Sturm's Theorem; theory of equations; integers, rings, groups, matrices and determinants. (Half course.)

TEXT: Weiss, *Higher Algebra for Undergraduates*REFERENCE: Dickson, *Theory of Equations*

PREREQUISITE: Mathematics 9b.

Day Division: Annually (lectures three hours a week, *second* term).MATHEMATICS 10. *Algebra*

Integral domains, fields, polynomials, group theory, vectors and vector spaces, algebra of matrices, linear groups, algebra of classes, rings and ideals, algebraic number fields.

TEXT: Birkhoff and MacLane, *A Survey of Modern Algebra*.

PREREQUISITE: Mathematics 9c.

Day Division: Annually (lectures three hours a week).

MATHEMATICS 11. *Advanced Calculus*

Partial derivatives, infinite series, Riemann integral, line and surface integrals, Gamma and Bessel functions, Laplace's equation.

TEXT: Sokolnikoff, *Advanced Calculus*.

PREREQUISITES: Mathematics 4a and b or 9a and b, and Mathematics 8.

Day Division: Annually (lectures three hours a week).

Evening Division: Annually (lectures three hours a week).

MATHEMATICS 12a. *Complex Variable*

General properties of analytic functions. (Half course.)

TEXT: Copson, *Theory of Functions of a Complex Variable*.

PREREQUISITE: Mathematics 11.

Day Division: Annually (lectures three hours a week, *first term*).

Evening Division: 1951-52 (lectures three hours a week, *first term*).

MATHEMATICS 12b. *Special Functions*

TEXT: Truesdell, *A Unified Theory of Special Functions*.

PREREQUISITE: Mathematics 11 and 12a.

Day Division: Annually (lectures three hours a week, *second term*).

Evening Division: 1951-52 (lectures three hours a week, *second term*).

MATHEMATICS 13. *Statistical Analysis*

A second course in statistics with emphasis on applications in various scientific fields. The course will include: correlation, simple multiple, and partial; small sample theory; chi-square tests; analysis of variance, simple and complex; analysis of covariance; testing hypotheses; introduction to the efficient design of experiments.

TEXT: To be announced.

PREREQUISITE: Mathematics 3b and 3c, or Economics 16.

Evening Division: 1951-52 (lectures three hours a week).

MATHEMATICS 14. *Statistical Services* (Formerly Statistics 2)

A review of the development of government statistics in Canada and their present status, with some reference to practice in other countries. Objectives and procedures will be discussed, both from the point of view of the statistical administrator and the user of numerical data. Theoretical considerations will be subordinated to problems of definition, collection and tabulation. (After 1950-51 this course may *not* be counted as a credit toward a continuation group in Mathematics.)

PREREQUISITE: Mathematics 1.

Not offered 1951-52.

MATHEMATICS 15a. *Solid Analytic Geometry*

Lines and planes; quadrics, ruled surfaces. Transformation to principal axes. (Half course.)

TEXT: Olmsted, *Solid Analytic Geometry*.

PREREQUISITE: Mathematics 9a and 9b.

Day Division: Annually (lectures three hours a week, *first term*).

MATHEMATICS 15b. *Numerical Methods*

Finite differences, least squares, nomograms. (Half course.)

TEXT: To be announced.

PREREQUISITES: Mathematics 2, and 9a and 9b.

Day Division: 1951-52 (lectures three hours a week, *second* term).

MATHEMATICS 16b. *Differential Equations*

Ordinary differential equations and an introduction to partial differential equations. (Half course.)

TEXT. Piaggio, *Differential Equations*

PREREQUISITE: Mathematics 8.

Day Division: Annually (lectures three hours a week, *second* term).

MATHEMATICS 17. *Differential and Integral Equations*

Initial and boundary value problems. The Laplace transform, operational mathematics.

TEXT: Churchill, *Modern Operational Methods in Engineering*.

PREREQUISITES: Mathematics 11 and 16b.

Day Division: Annually (lectures three hours a week).

MATHEMATICS 18a. *Differential Geometry*

Theory of curves and surfaces. (Half course.)

TEXT: Eisenhart, *Differential Geometry*.

PREREQUISITE: Permission of the Department.

Day Division: 1952-53 and alternate years (lectures three hours a week, *second* term).

MATHEMATICS 19a. *Projective Geometry*

(Half course.)

TEXT: Coxeter, *The Real Projective Plane*.

PREREQUISITES: Mathematics 10 and 15a.

Day Division: 1951-52 and alternate years (lectures three hours a week, *first* term).

MATHEMATICS 20a. *Elementary Probability*

Logical foundations and axiomatic treatment. Combinatorial problems. Distribution functions in one or more dimensions. Stieltjes integrals. Moments. Binomial, normal and Poisson distributions. Generating and characteristic functions. Cumulants. Convolution of distributions and limit theorems. Stochastic convergence and the law of large numbers. (Half course.)

TEXT: To be announced.

PREREQUISITE: Mathematics 8.

Evening Division: 1952-53 and alternate years (lectures three hours a week, *first* term).

MATHEMATICS 20b. *Statistical Inference*

Fundamentals in estimation and testing hypotheses. Criteria of consistent, efficient, and sufficient estimates. The method of maximum likelihood. The Student distribution. X² distribution, F distribution and applications of these. The power of a test. Illustrations from physical, biological and social sciences. (Half course.)

TEXT: To be announced.

PREREQUISITE: Mathematics 20a.

Evening Division: 1952-53 and alternate years (lectures three hours a week, second term).

MATHEMATICS 21a. *Problems in Mathematics*

Honours students work a number of advanced problems drawn from various sources. No lectures are given. (Half course.)

PREREQUISITE: Open only to honours Mathematics students.

Day Division: Annually (tutorial hours arranged).

MUSIC

Sessional Lecturers . . . Myron McTavish, Mus. Bac., L.T.C.M.
F.A.G.O., Ch.M., F.C.C.O.
Carman H. Milligan, Mus. Bac.

MUSIC 1. *Music in Western Civilization*

A survey of the rise of music in the occidental world from the time of the Greeks to the present day. The course is extensive rather than intensive and will serve as an introduction to the vast field of musical history, of which only small portions are dealt with in the usual texts.

TEXTS: Finney, *A History of Music*.

Curt Sachs, *Our Musical Heritage*.

Evening Division: 1951-52 (lectures, listening and discussion, three hours a week).

MUSIC 2. *Great Music of the 18th and 19th Centuries*

A course designed to provide a basis for intelligent listening. Music of Bach and Handel; Haydn, Mozart and Beethoven; Brahms and Wagner, will be criticized and discussed with a view to discovering the elements in some of the works of these great composers. While proficiency in music will be of great advantage to anyone taking the course, its chief purpose is to assist the average person in assessing and enjoying music in the general concert repertoire.

Not offered 1951-52.

PHILOSOPHY

Associate Professor . . . Hans Jonas, Ph.D.

Assistant Professor and

Chairman of the Dept. C. G. S. McKeown, M.A.

(on leave of absence 1951-52)

Lecturer W. J. Huggett, M.A.

Assistant Virginia A. McDonald, B.A.

Note: Students who intend taking Philosophy as a continuation subject will consult the senior member of the Department.

PHILOSOPHY 2. *Critical Thinking*

In the first term, principles of clear meaning and valid inference are investigated. The student is introduced to deductive logic, to a study of language, to induction and scientific method. Attention is directed to techniques employed in the solution of definite problems. In the second term, the nature of central propositions within the principal ethical theories is examined with a view to determining the criteria of moral judgments.

Day Division: Annually (lectures two hours a week, discussion one hour a week).

Evening Division: Annually (lectures two hours a week, discussion one hour a week).

PHILOSOPHY 3. *History of Philosophy: Ancient*

Early Greek philosophy and the origin of science; the Sophists; the role of Socrates; Greek education; the systems of Plato and Aristotle. Certain dialogues of Plato and selections from Aristotle will be studied intensively.

PREREQUISITE: Philosophy 2 or permission of the Department.

Day Division: Annually (lectures two hours a week, discussion one hour a week).

Evening Division: 1951-52 and alternate years (lectures two hours a week, discussion one hour a week).

PHILOSOPHY 4. *History of Philosophy: Modern*

A survey of philosophy from the Renaissance, with special study of continental rationalism (Descartes, Spinoza, Leibniz), English empiricism (Locke, Berkeley, Hume), the critical philosophy of Kant. Extensive readings in the original literature will be required.

PREREQUISITE: Philosophy 3.

Day Division: Annually (lectures two hours a week, discussion one hour a week).

Evening Division: 1952-53 and alternate years (lectures two hours a week, discussion one hour a week).

PHILOSOPHY 5. *Twentieth Century Philosophy*

This course is designed to conclude the historical survey of philosophy and also to provide a systematic investigation of certain main problems arising in contemporary theory of knowledge. Extensive readings from Bergson, James, Dewey, Lewis, Ayer, Russell, Price.

PREREQUISITE: Philosophy 4 or permission of the Department.

Day Division: Annually (lectures two hours a week, discussion one hour a week).

PHILOSOPHY 6. *Theory of Value*

In the first term, contemporary theories of value and a number of the related problems of language, metaphysics and epistemology will be examined. In the second term, theories of aesthetics will be discussed. Extensive readings will be required.

PREREQUISITE: Philosophy 2 or permission of the Department.

Day Division: 1951-52 (lectures two hours a week, discussion one hour a week).

PHILOSOPHY 7. *The Theory of God in Western Philosophy and Religion*

The God of Being: 'ontological theology' (Plato, Aristotle, Plotinus, Spinoza). The God of History (the Hebrew prophets, Christian Eschatology, Hegel). The God of the soul (Augustine, the Mystics). The God of reflective selfhood: 'anthropological theology' (St. Paul, Pascal, Kierkegaard, Dostoyevsky). The God of Nihilism (the Gnostics; Nietzsche and Epicurus).

PREREQUISITE: Philosophy 4 or permission of the Department.

Day Division: 1951-52 (lectures two hours a week, discussion one hour a week).

PHYSICS

Assistant Professors . . . A. M. Munn, M.Sc., Ph.D.

G. R. Love, M.A., Ph.D.

Lecturer T. J. S. Cole, B.Sc.(Eng.), B.Sc., A.C.G.I.

It is recommended that Pass Course students choose their courses in Physics from Physics 1, 2a, 2b, 14b, 3a, 3b, 8 and 12. The other Physics courses should be attempted only if the student's grades in elementary Physics are satisfactorily high.

Other courses in Physics will be arranged by the Department for students desiring to investigate some special phase of the science.

HONOURS COURSE

Students in Honours Physics should ordinarily take Physics 1 in first year, Physics 2a, 2b in second year, Physics 3a, 3b in third year, Physics 14b in second or third year. In their third, fourth and fifth years they will take (in the order determined by courses offerings each year) all the remaining Physics courses with the exception of Physics 8. Before planning their schedule of courses each year they should consult the head of the Department.

Students at the end of the fourth and fifth year of honours Physics will not write examinations in separate courses, as they are outlined in the calendar, but rather comprehensive examinations covering the whole field of Physics and relevant Mathematics.

PHYSICS 1. *General Physics*

A survey of general elementary physics.

TEXT: Perkins, *Basic College Physics*.

PREREQUISITE: Mathematics 1 (may be taken concurrently).

Day Division: Annually (lectures two hours a week, problem periods two hours a week, laboratory two hours a week).

PHYSICS 2a. *Properties of Matter*

A course in elementary heat and properties of matter. (Half course.)

TEXT: Sears, *Principles of Physics*, Vol. I.

PREREQUISITES: Physics 1 and Mathematics 1. (Mathematics 2 will be taken concurrently by day students.)

Day Division: Annually (lectures and problems three hours a week, laboratory three hours a week, *first* term).

Evening Division: 1951-52 (lectures and problems three hours a week, laboratory three hours a week, *first* term).

PHYSICS 2b. *Wave Motion*

A course in wave motion, sound and elementary light. (Half course.)

TEXT: Sears, *Principles of Physics*, Vols. I and III.

PREREQUISITES: Physics 1 and Mathematics 1. (Mathematics 2 will be taken concurrently by day students.)

Day Division: Annually (lectures and problems three hours a week, laboratory three hours a week, *second* term).

Evening Division: 1951-52 (lectures and problems three hours a week, laboratory three hours a week, *second* term).

PHYSICS 3a. *Elementary Electricity*

A course in electrostatics, direct current flow, magnetism, and elementary electromagnetic phenomena. (Half course.)

TEXT: Sears, *Principles of Physics*, Vol. II.

PREREQUISITES: Physics 1 and Mathematics 2.

Day Division: Annually (lectures and problems three hours a week, laboratory three hours a week, *first* term).

Evening Division: Not offered 1951-52.

PHYSICS 3b. *Intermediate Electricity*

This is an extension of Physics 3a to cover more advanced topics in electromagnetics and alternating current theory. An introduction to the theory of vacuum tubes is made. (Half course.)

TEXT: Sears, *Principles of Physics*, Vol. II.

PREREQUISITES: Physics 3a and Mathematics 2. Mathematics 8 should be taken previously or concurrently.

Day Division: Annually (lectures and problems three hours a week, laboratory three hours a week, *second* term).

Evening Division: Not offered 1951-52.

PHYSICS 4. *Thermodynamics*

An advanced course in heat and thermodynamics.

TEXT: Zemansky, *Heat and Thermodynamics*

PREREQUISITES: Physics 2a and Mathematics 2.

Day Division: 1951-52 (one three-hour seminar a week).

PHYSICS 5a. *Physical Optics*

An advanced course in physical optics. (Half course.)

TEXT: Jenkins and White, *Physical Optics*.

PREREQUISITES: Physics 2b and Mathematics 2.

To be offered 1952-53 and alternate years.

PHYSICS 6. *Vector Mechanics*

An intermediate course on mechanics, using methods of vector analysis.

TEXT: Sygne and Griffith, *Principle of Mechanics*.

PREREQUISITES: Physics 14b and Mathematics 2. Mathematics 8 should be taken previously or concurrently.

Day Division: 1951-52 (one three-hour seminar a week).

PHYSICS 7. *Electromagnetism*

An advanced discussion of electricity and magnetism by the methods of vector analysis—leading to Maxwell's equations and their applications.

TEXT: Harnwell, *Principles of Electricity and Electromagnetism*.

PREREQUISITES: Physics 3b and 6 and Mathematics 2. Mathematics 8 should be taken previously or concurrently.

To be offered 1952-53 and alternate years.

PHYSICS 8. *Atomic Physics*

The molecular-atomic theory of matter.

TEXT: Semat, *Atomic Physics*.

PREREQUISITES: Physics 2a, 2b and 14b, and Mathematics 2. Also, Physics 3a should be taken previously or concurrently.

To be offered 1952-53 and alternate years.

PHYSICS 9. *Theoretical Physics*

Advanced mechanics and an introduction to wave mechanics, matrix mechanics and relativistic theory.

TEXT: Slater and Frank, *Theoretical Physics*.

PREREQUISITES: Physics 6, Mathematics 8, and Physics 15 or the equivalent.

Day Division: 1951-52 (one three-hour seminar a week).

PHYSICS 10. *Modern Physics*

Topics included are: Heat, kinetic theory of gases, statistical mechanics, nuclear physics, and electromagnetic theory with applications.

TEXTS: Slater and Frank, *Theoretical Physics*.

Richtmyer and Kennard, *Modern Physics*.

PREREQUISITE: Open to fifth-year students honouring in physics.

Day Division: 1951-52 (one three-hour seminar a week).

PHYSICS 11. *Laboratory Technique*

An advanced laboratory course designed to train students in laboratory technique.

PREREQUISITE: For students in fourth year honours Physics.

Day Division: Annually (laboratory six hours a week).

PHYSICS 12. *Electronics*

A.C. circuit analysis and a thorough discussion of the application of vacuum and gas tubes.

TEXT: Seeley, *Electron Tube Circuits*.

PREREQUISITES: Physics 3a and 3b and Mathematics 2.

Day Division: Not offered 1951-52.

Evening Division: 1951-52 (seminar three hours a week, laboratory three hours a week).

PHYSICS 13. *Laboratory Technique*

An advanced laboratory course designed to train students in experimental technique.

PREREQUISITE: For students in fifth year honours Physics.

Day Division: Annually (laboratory nine hours a week).

PHYSICS 14b. *Mechanics*

A course in elementary mechanics, designed to accompany Physics 2a and 2b for Science students who will be continuing the study of physics or chemistry. (Half course.)

TEXT: Sears, *Principles of Physics*, Vol. I.

PREREQUISITES: Physics 1 and Mathematics 1. Mathematics 2 should be taken previously or concurrently.

To be offered 1952-53 and alternate years.

PHYSICS 15. *Mathematics of Physics, I*

A first course in the mathematics of physics.

TEXT: Marganau and Murphy, *The Mathematics of Physics and Chemistry*.

PREREQUISITE: For students in fourth year honours Physics.

Day Division: 1951-52 (one three-hour seminar a week).

PHYSICS 16. *Mathematics of Physics, II*

A second course in the mathematics of physics.

TEXT: Marganau and Murphy, *The Mathematics of Physics and Chemistry*.

PREREQUISITE: For students in fifth year honours Physics.

Day Division: 1951-52 (one three-hour seminar a week).

POLITICAL SCIENCE AND PUBLIC ADMINISTRATION

Assistant Professors . . . P. W. Fox, M.A.
(on leave of absence 1951-52)
D. C. Rowat, A.M., Ph.D.

Lecturer G. M. Hougham, M.A.

Sessional Lecturers . . . R. A. MacKay, B.A., Ph.D., F.R.S.C.
E. A. Forsey, M.A., Ph.D.
R. A. J. Phillips, B.A.
N. M. Ward, M.A. Ph.D.

Students intending to enter honours in Political Science in the third year are advised to take Political Science 2 in the second year. In the following years their courses will be selected as follows: In the third year, Political Science 3 and 4 and three additional subjects approved by the Department; in the fourth year, Political Science 6 and 9, Political Science 11 *or* 17 *or* 18, and two additional subjects; in the fifth year, Political Science 10, Political Science 11 *or* 17 *or* 18, and one other in Political Science (which normally would be Political Science 14 if the candidate is preparing a thesis), plus two additional subjects.

An honours student in Political Science will be expected to take a minor in some other subject, preferably Economics, Public Law, History, Sociology, or Philosophy.

Students are encouraged and assisted to make use of the unique advantages Ottawa offers in personnel and material in the fields of politics, government and public administration. Essays and papers on special topics will be required regularly and candidates may be asked to present a dissertation on some topic involving independent investigation, the subject to be chosen in consultation with the senior member of the Department.

All candidates for honours in Political Science will be required to show, by their final year, a reading knowledge of a modern language other than English.

POLITICAL SCIENCE 1. *The Government of Canada*

An introductory course in government and politics with particular reference to Canada.

Discontinued after 1947-48. (See Political Science 2.)

POLITICAL SCIENCE 2. *Introduction to Political Science*

A study of modern political ideas and institutions with particular reference to the structure of the government of Canada.

TEXTS: Corry, *Democratic Government and Politics*.
Dawson, *The Government of Canada*.

Day Division: Annually (lectures two hours a week, group discussion one hour a week).

Evening Division: Annually (lectures two hours a week, group discussion half an hour a week). Also Summer 1951 (lectures five hours a week).

POLITICAL SCIENCE 3. *Comparative Government*

A comparative study of the governments of the United Kingdom, the United States of America, and the British Dominions.

TEXTS: Ogg, *English Government and Politics*.
Ogg and Ray, *Introduction to American Government*.
Brady, *Democracy in the Dominions*.

PREREQUISITE: Political Science 2.

Day Division: Annually (lectures two hours a week, group discussion one hour a week).

Evening Division: Annually (lectures two hours a week).

POLITICAL SCIENCE 4. *History of Political Theory*

A general survey of the history of thought, with special reference to political theory, from ancient times to the present. A course in ideas, their sources, their validity, and their significance.

TEXTS: To be announced.

PREREQUISITE: Political Science 2 or the permission of the Department.

Day and Evening Divisions: Annually (lectures and discussions, hours arranged).

POLITICAL SCIENCE 6. *Introduction to Public Administration*

A general study of problems in Canadian public administration, including an examination of: structure and organization in government; administrative practices and leadership; the relationship between administration and politics, the law, and the interests of the state and its citizens; and related topics.

TEXTS: White, *Introduction to the Study of Public Administration*.
Simon et al., *Public Administration*.
Cole, *The Canadian Bureaucracy*.
Buck, *Financing Canadian Government*.
Institute of Public Administration of Canada, *Proceedings*.

PREREQUISITE: Political Science 2; preferably Political Science 3 also.

Day Division: Annually (lectures and seminars two hours a week, group discussion one hour a week).

Evening Division: Annually (lectures and seminars two hours a week).

POLITICAL SCIENCE 7. *Civil Service Principles and Legislation*

(Formerly Personnel Management 102)

A comparative study of the development of civil service personnel selection and organization in Canada, Great Britain and the United States. Topics to be studied include patronage and the spoils system, the merit system, structure and functions of typical Canadian Departments, principles of organization and classification, recruiting methods, examination programmes and techniques, principles of promotion, "in-service" training, ex-service preferences, provincial and municipal civil services.

PREREQUISITE: Political Science 2.

Discontinued after 1949-50. (See Political Science 6).

POLITICAL SCIENCE 9. *Seminar in Modern English Political Theory*

A specialized study of the development of English political theory and of the significant English political philosophers from the seventeenth century to the present. Hobbes, Milton, Sidney, Harrington, Filmer, Halifax, Locke, Hume, Burke, Bentham, Mill, Maine, Austin, Spencer, Green, Bosanquet, the Fabians, Hobhouse, Wallas, Laski, Cole, etc.

TEXTS: The works of the relevant political philosophers.

PREREQUISITE: Political Science 4.

Day Division: 1952-53 and alternate years (tutorials three hours a week).
(Alternates with Political Science 12.)

POLITICAL SCIENCE 10. *Seminar in Political Philosophy (The State and the Individual)*

An examination of theories of the state and of the place of individuals in it, with particular attention paid to the modern democratic state and to the study of such concepts as "liberty", "equality", "rights and duties", etc.
This is a highly theoretic course which requires extensive reading and participation in seminar discussion.

PREREQUISITES: Political Science 2 or 3, and Political Science 4 or 9, or permission of the Department.

Day and Evening Divisions: 1952-53 and alternate years (hours arranged).

POLITICAL SCIENCE 11. *Seminar in Canadian Government*

An advanced course in Canadian political institutions and problems.

PREREQUISITE: Permission of the Department.

Evening Division: Annually (seminar two hours a week).

POLITICAL SCIENCE 12. *Seminar in European Political Theory*

A study of the history, development and doctrines of French political theory from the sixteenth century to the present, and of German and Russian political theory in the last century.

PREREQUISITES: Political Science 4 and at least a reading knowledge of French.

Day Division: 1953-54 and alternate years (tutorials three hours a week).
(Alternates with Political Science 9.)

POLITICAL SCIENCE 13. *Seminar in Foreign Government (Russia)*

An examination of the theory and practice of the Soviet State.

PREREQUISITES: Political Science 2, or permission of the Department.

Evening Division: 1951-52 and alternate years (seminar 2½ hours a week).
(Alternates with Political Science 16.)

POLITICAL SCIENCE 14. *Seminar in Political Research*

This course, for honour students only, is designed for training in research techniques and for the discussion and criticism of honour dissertations, and other special research projects pursued under the auspices of the Department in connection with the facilities available in the Archives of Canada, the Library of Parliament, and the government departments.

Day Division: Annually, for honours students only (hours arranged).

POLITICAL SCIENCE 16. *Seminar in Foreign Government (China and Japan)*

A study of public affairs in the Far East with particular reference to the structure and philosophies of government in China and Japan.

PREREQUISITE: Political Science 2 or the permission of the Department.

Evening Division: 1952-53 and alternate years (seminar two hours a week).
(Alternates with Political Science 13.)

POLITICAL SCIENCE 17. *Seminar in Public Administration (Provincial and Municipal)*

An advanced course in public administration.

PREREQUISITE: Permission of the Department.

Day and Evening Divisions: 1951-52 and alternate years (seminar two hours a week).

POLITICAL SCIENCE 18. *Seminar in Public Administration (National)*

An advanced course in public administration.

PREREQUISITE: Permission of the Department.

Day and Evening Divisions: 1952-53 and alternate years (seminar two hours a week).

See also Psychology 8, *The Psychology of Political Groups*.

PSYCHOLOGY

Sessional Lecturers . . . Florence S. Dunlop, A.M., Ph.D.
F. E. Whitworth, A.M., Ph.D.
J. F. Dawe, B.Sc., B.Ed., A.M.
T. W. Cook, M.A., Ph.D.
E. June Rogers, A.M.
Robert D. Dickie, M.A.

PSYCHOLOGY 2. *General Psychology*

A survey of general psychology. A systematic study of sensation, perception, motivation, learning, emotion, and thought. The psychology of individual differences in intelligence, aptitude, and personality. Psychology applied to study habits, careers, and personal adjustment. Contemporary psychological theories.

TEXT: To be announced.

Day Division: Annually (lectures three hours a week).

Evening Division: Annually (lectures two hours a week). Also Summer 1951 (lectures five hours a week).

PSYCHOLOGY 3. *Applied Psychology*

Elementary applications of psychology with particular reference to business, industry and the home; the measurement of aptitudes and interests; personality and problems of adjustment; and a systematic treatment of problems of study habits.

PREREQUISITE: Psychology 2 or permission of the instructor.

Discontinued after 1949-50.

PSYCHOLOGY 4. *Personnel Psychology* (Formerly Personnel Management 100)

This course considers the needs of personnel administrators, supervisors and executives. It deals with current problems and procedures in personnel management, including the following: employee selection, induction, training, placement; transferring, up-grading and employee relations. Uses of tests and rating scales in the administration of personnel. Uses of job analysis, time and motion study. Maintaining morale and job satisfaction, enquiry techniques. How to conduct a conference. How to interview. Problems of communication at employee, supervisor and management levels.

TEXTS: To be announced.

PREREQUISITE: Psychology 2, or permission of the instructor. Recommended: Mathematics 3b.

Evening Division: 1951-52 (lectures two hours a week).

PSYCHOLOGY 5. *Child Psychology*

This course traces the growth and development of the child from birth to adolescence. Prevention, diagnosis and correction of various types of problems will be stressed. Considerable use will be made of case histories and suitable films. Several texts and a variety of reference materials will be used.

PREREQUISITE: Psychology 2.

Day Division: 1951-52 (lectures three hours a week).

Evening Division: 1952-53 (lectures two hours a week).

PSYCHOLOGY 6. *Social Psychology*

An examination of the psychological conditions of social life. Review of theories of motivation, and their usefulness in social theory. Psychological analyses of religion and morals, war and group conflict, political power and authority, public opinion and propaganda, crime, fashion, national and racial characteristics. (This course is also listed as Sociology 6.)

TEXT: To be announced.

PREREQUISITE: Psychology 2.

Day Division: 1951-52 (lectures three hours a week).

Evening Division: 1951-52 (lectures two hours a week).

PSYCHOLOGY 7. *Theory of Personality and Adjustment*

This course deals with theories of personality and considerations of processes of normal adjustive behaviour from the mental health viewpoint. The course introduces techniques of personality evaluation which serve as indicators of normal and abnormal adjustments. Students are encouraged to investigate the adequacy of their own adjustments to life.

TEXTS: To be announced.

PREREQUISITE: Psychology 2.

Not offered 1951-52.

PSYCHOLOGY 8. *The Psychology of Political Groups*

A course in social psychology, drawing on the fields of psychology, anthropology, political science and history.

TEXTS: To be announced.

PREREQUISITE: Psychology 6 or permission of the instructor.

Evening Division: 1951-52 (lectures two hours a week).

PUBLIC LAW

Sessional Lecturers . . . G. F. Henderson, B.A.

C. F. Scott, B.A.

PUBLIC LAW 1. *The Elements of Public Law* (Formerly Public Law 100)

An introduction to the study of law, designed to acquaint the non-lawyer with the principal institutions, concepts, and classifications of the law, with special reference to Canada. (Except for students with previous legal training, this course is prerequisite for other courses in Public Law.)

Evening Division: Annually (lectures 2½ hours a week).

PUBLIC LAW 2. *The Constitutional Law of Canada* (Formerly Public Law 102)

A general survey of the Canadian Constitution. The position of the Crown; the British North America Act and related statutes and orders with particular reference to the distribution of legislative power and attendant problems; study of selected powers of Dominion and provinces.

PREREQUISITE: Public Law 1.

Evening Division: 1951-52 and alternate years (lectures 2½ hours a week, seminars arranged).

PUBLIC LAW 3. *Administrative Law* (Formerly Public Law 103)

This course is designed as a study of the field of administrative law in the light of current social and economic problems and relationships and in the light of the trends of modern legislation, with particular reference to Canada. Theories influencing development in the

field; delegated legislation and delegated adjudicative power, their nature and extent, reasons for delegation, dangers; judicial and extra-judicial review and control; administrative procedure; suggested reforms.

PREREQUISITE: Public Law 1.

Evening Division: 1952-53 and alternate years (lectures 2½ hours a week, seminars arranged).

RELIGIOUS KNOWLEDGE

RELIGIOUS KNOWLEDGE 1. *New Testament Literature*

An introduction to the history and literature of the New Testament. Religious and social background of the writings of the New Testament. The Four Gospels, their origins and the problems of their authorship and composition, including the Synoptic and Johannine problems. The life and letters of Paul and the beginnings of the Christian Church. The non-Pauline epistles and the Christian Apocalypse.

Not offered 1951-52.

RUSSIAN

Sessional Lecturer . . . D. I. Lalkow, M.D.
F. P. Bohatirchuk, M.D.

Note: Students in all classes are advised to procure Müller's Russian-English and English-Russian dictionaries.

RUSSIAN A. *Beginners' Russian*

The work comprises the elements of grammar; orthography, writing, pronunciation, accentuation and reading of easy texts. The course in grammar, though elementary in form, is practical for reading, writing and speaking Russian. Translation of exercises from Russian into English and from English into Russian. Elementary conversational practice. (Credit is given for this course only upon the subsequent completion of Russian I.)

TEXTS: Bondar, *Simplified Russian Method, 7th Edition*
Patrick, *Elementary Russian Reader*
Kany and Kaun, *Elementary Russian Conversation*

Evening Division: 1951-52 (lectures two hours a week, phonetics and oral practice one hour a week).

RUSSIAN 1. *Russian Language*

Review and completion of twenty-four lessons in Bondar's *Simplified Russian Method*. By then the student will have a vocabulary sufficient for simple conversation and for easy translations. Simple narratives of Russian life, customs and history, with short stories from Chekhov, Turgenyev and Tolstoy, and poetic works by Pushkin, Lermontov and others. Optional course in commercial correspondence: business letters, terms and phrases.

TEXTS: Bondar, *Simplified Russian Method, 7th Edition*
Patrick, *Intermediate Russian Reader*
Kany and Kaun, *Elementary Russian Conversation*

PREREQUISITE: Russian A.

Evening Division: 1951-52 (lectures two hours a week, phonetics, oral practice, and reading, one hour a week).

RUSSIAN 2. *Russian Language and Readings*

Completion of Bondar's text and advanced course in grammar and syntax as exemplified in Russian classics, prose and poetry. The main object of this course is the acquisition of the 'feel' of the language. Composition of short and simple essays. Conversation. Translation. Further readings from Russian literature as indicated in Russian 1. Continuation of commercial Russian begun in Russian 1; readings dealing with various branches of commercial activity (optional).

TEXTS: As for Russian 1.

REFERENCE TEXTS: Anna Semeonoff, *New Russian Grammar*
 Patrick, *Intermediate Russian Reader*
 Kany and Kaun, *Intermediate Russian Conversation*

PREREQUISITE: Russian 1.

Evening Division: 1951-52 (lectures two hours a week, seminar two hours a week).

RUSSIAN 3. *Russian Language and Literature*

Advanced course in Russian syntax, writing of essays, translation from English to Russian, conversation, Russian literature, and reading from the Russian press.

TEXTS: I. A. Sikorsky, *Kniga Zbizni*
 Turgenyev, *Fathers and Sons*
Novoye Russkoye Slovo (Sunday edition)
 Kany and Kaun, *Advanced Russian Conversation*

PREREQUISITE: Russian. 2.

Evening Division: 1951-52 (lectures two hours a week, seminar two hours a week).

SOCIAL POLICY

SOCIAL POLICY 1. *Social Legislation* (Formerly Social Policy 101)

A survey of Federal and Provincial social legislation with emphasis on recent developments in the field of social security, the administration of such measures and consideration of their social and economic effects.

PREREQUISITE: Economics 2.

Discontinued after 1949-50.

SOCIAL POLICY 2. *Labour Policy* (Formerly Social Policy 102)

Labour and employer organization; government policy in relation thereto; economic and social implications.

PREREQUISITE: Economics 2.

Discontinued after 1948-49. (See Commerce 4, *Labour Economics and Industrial Relations*.)

SOCIOLOGY

(including Anthropology)

Lecturer J. A. Porter, B.Sc. (Econ.)

Sessional Lecturer June H. MacNeish, Ph.B., A.M.

Note: Students interested primarily in Anthropology are advised to take Sociology 3a, 4b and 7 following Sociology 1.

SOCIOLOGY 1. *Introduction to Sociology and Anthropology*

A comparative study of social institutions and social structure, aimed at analyzing basic forms of social relations, social groups, social control, and the conditions of social change. Attention is paid to both the simpler peoples and complex societies.

Day Division: Annually (lectures two hours a week, group discussion one hour a week).

Evening Division: Not offered 1951-52.

SOCIOLOGY 2. *Theories and Methods of Sociology*

Scope of sociology. Relationship of sociology to the other social sciences. Main contributions to sociological thought: Comte, Spencer, Marx, Pareto, Hobhouse, Durkheim, Veblen. Development of sociology in the U.S.A. Critical examination of the techniques employed in contemporary sociological investigation.

PREREQUISITE: Sociology 1.

Not offered 1951-52.

SOCIOLOGY 3a. *Race and Culture Contacts*

A survey of the problems arising from the contacts of peoples of different races and cultures. Particular attention will be paid to Canadian problems. (Half course.)

PREREQUISITE: Sociology 1.

Day Division: 1951-52 (lectures three hours a week, *second* term).

SOCIOLOGY 4b. *Archaeology and Ethnology*

A consideration of the aims and methods of archaeology and ethnology presented in terms of Canadian pre-history. A brief archeological excavation in the field will be arranged. (Half course.)

PREREQUISITE: Sociology 1 or permission of the instructor.

Day Division: 1951-52 (lectures three hours a week, *first* term).

SOCIOLOGY 5. *Sociology of the Primary Group*

An examination of small face-to-face groups and their relationship to the social structure of the larger society. Particular attention will be paid to the family, children's play groups, juvenile gangs, and the industrial working group.

PREREQUISITE: Sociology 1.

Day Division: 1951-52 (lectures two hours a week, group discussion one hour a week).

SOCIOLOGY 6. *Social Psychology*

(Offered in the Department of Psychology as Psychology 6.)

SOCIOLOGY 7. *Human Origins*

A survey of the physical and cultural development of man from his earliest known beginnings to the early food-producing horizons. The course comprehends the physical evolution of man and his concomitant cultural growth.

Evening Division: 1951-52 (lectures two hours a week).

SPANISH

Lecturer Doris I. Inch, M.A.

SPANISH A.

A course designed to meet the needs of students who enter with little or no knowledge of Spanish. The work will comprise the elements of grammar, the building up of basic vocabulary, exercises in pronunciation, dictation and translation, and the reading of easy Spanish prose. (Credit is given for this course only upon the subsequent completion of Spanish 1. If taken to make up a matriculation deficiency, no credit is allowed. See also Spanish 11, in which the work of Spanish A and Spanish 1 is covered in one course.)

TEXTS: Barlow, *Basic Spanish*.

Espinosa, *Primeras Lecturas*.

Torres-Rioseco, *Cartilla mejicana*.

Day Division: Day students take Spanish 11.

Evening Division: 1951-52 (lectures two hours a week).

SPANISH 1.

More advanced grammar, reading, translation and oral exercises.

TEXTS: House and Mapes, *Shorter Spanish Grammar*.

Cano and Saenz, *Easy Spanish Plays*.

Espinosa, *Cuentitos faciles*.

Keniston, *Reading Spanish*.

PREREQUISITE: Spanish A or equivalent.

Day Division: Not offered 1951-52 (See Spanish 11).

Evening Division: Annually (lectures two hours a week).

SPANISH 2.

Lectures on the history of Spanish literature and civilization; reading, translation, oral exercises and grammar review.

TEXTS: Walsh, *Repaso*.

Alarcon, *El sombrero de tres picos*.

Martinez Sierra, *Sueno de una noche de agosto*.

Bosworth and James, *Cuentos Modernos*.

PREREQUISITE: Spanish 1 or 11.

Day Division: Annually (lectures three hours a week).

Evening Division: Annually (lectures three hours a week).

SPANISH 3. *Commercial Spanish*

Introduction to business Spanish; grammar review; oral exercises and translation.

TEXTS: Luria, *Correspondencia commercial al dia*.

Walsh, *Repaso*.

PREREQUISITE: Spanish 1 or 11.

Not offered 1951-52.

SPANISH 4.

Spanish literature of the nineteenth century. Reading of representative works; composition and conversation.

TEXTS: Zorrilla, *Don Juan Tenorio*.

Tamayo y Baus, *La locura de amor*.

Echegaray, *El gran galeoto*.

Fernan Caballero, *La gaviota*.

Perez Galdos, *Dona Perfecta*.

N. B. Adams, *Brief Spanish Review Grammar and Composition*.

PREREQUISITE: Spanish 2.

Day Division: Not offered 1951-52.

Evening Division: 1951-52 (lectures three hours a week).

SPANISH 5.

The Golden Age of Spanish literature. Reading of representative works; composition.

TEXTS: Castillo and Montgomery, *Advanced Spanish Composition*.

Cervantes, *Don Quijote*.

La estrella de Sevilla.

Buchanan, *Spanish Poetry of the Golden Age*.

Northup, *Selections from the Picaresque Novel*.

PREREQUISITE: Spanish 4 or permission of the Department.

Day Division: Not offered 1951-52.

Evening Division: 1951-52 (lectures three hours a week).

SPANISH 11.

A special course for beginners in Spanish which will enable students to complete the work of Spanish A and Spanish 1 in one academic year.

TEXTS: House and Mapes, *Shorter Spanish Grammar*.

Espinosa, *Primeras Lecturas*.

Espinosa, *Espana*.

Keniston, *Reading Spanish*.

Cano and Saenz, *Easy Spanish Plays*.

Day Division: Annually (lectures five hours a week).

Evening Division: Evening students take Spanish A and 1.

STATISTICS

STATISTICS 1. *Introduction to Statistical Methods* (Formerly Statistics 100)

A survey of the history of the subject and a summary of sources of data will lead into a fairly rigorous presentation with emphasis on the frequency distribution and its measures. Applications to population, biology and business statistical analysis will provide examples of the theoretical principles.

PREREQUISITE: Mathematics 1.

Discontinued after 1946-47. (See Mathematics 3b, 3c, *Elementary Mathematical Statistics*, and Economics 16, *Statistical Methods in the Social Sciences*.)

STATISTICS 2. *Statistical Services* (Formerly Statistics 101)

Discontinued after 1946-47. (Subsequently listed as Mathematics 14.)

For current courses in statistics, see:

Economics 16, *Statistical Methods in the Social Sciences*.

Mathematics 3b, 3c, *Elementary Mathematical Statistics*.

Mathematics 13, *Statistical Analysis*.

Mathematics 14, *Statistical Services*.

Mathematics 20a, *Elementary Probability*.

Mathematics 20b, *Statistical Inference*.

ZOOLOGY

(See Biology)

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